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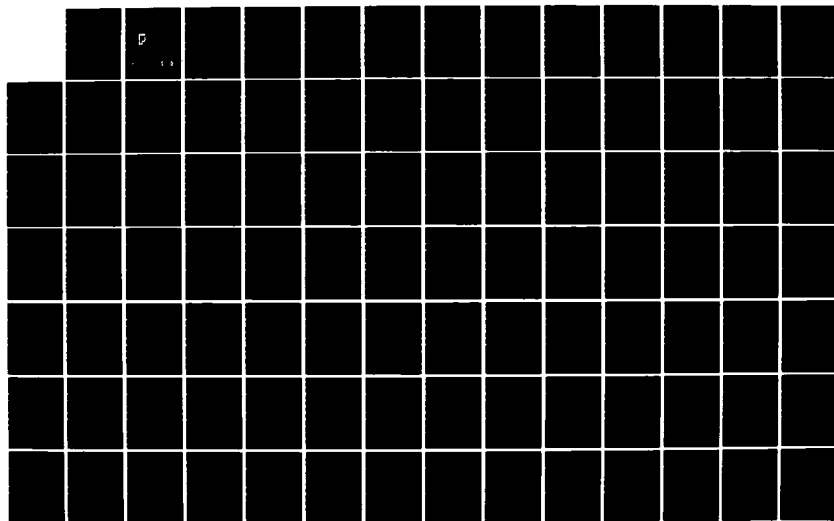
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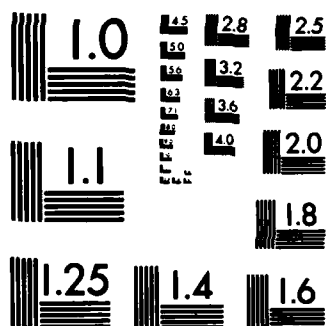
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DEVELOPMENT REPORT

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The report describes in detail the development of a job task specific function basic skills education program developed for the radio teletype operator. Included are lesson specifications and material concerning course design and course development decisions or conclusions. Sequencing media decisions and standards are discussed.		

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INTRODUCTION

The intent of this report is to describe the development of the 05C10 FBSEP Course of instruction. The principal approach will be to show any modifications which have occurred subsequent to the Design Report.

Any deviations from the Design Report which were necessitated by the developmental process were documented on the Design Report Modification form, a copy of which is included in Appendix A.

Any additional revisions to a specific lesson were also documented on two other forms. One form was used to outline the revisions suggested by the developmental trial of the lesson. This form is titled Revision Indicators. A second form, called Revisions Summary Sheet, was used to detail the specific revisions made to accommodate the results of this trial and the revisions made as a result of a quality control process which involved the writers, the technical advisors, and the educational specialist. At this point the lessons were also checked to ensure that format and stylist guidelines were adhered to. A copy of each of these revision forms is also included in Appendix A.

The findings and the end result of these procedures comprise this Development Report.

This report consists of seven sections:

- 1. Basic Skills Lessons Included in FBSEP**
- 2. Clustering of Basic Skills Lessons**
- 3. Relationship Between FBSEP Lessons and AIT Lessons**
- 4. Sequencing of FBSEP Lessons and AIT Lessons**
- 5. Time Estimate for Each FBSEP Lesson**
- 6. Media Prescribed for Each FBSEP Lesson**
- 7. Standards Required for Each FBSEP Lesson**

SECTION 1: BASIC SKILLS LESSONS INCLUDED IN FBSEP

This section details the specific 05C FBSEP lessons included in the program of instruction.

The first part of the section compares this list of lessons with the proposed list of lessons outlined in the Design Report. To make this comparison more meaningful, each annex is dealt with individually. For each annex, there is a table listing the suggested FBSEP lessons proposed in the Design Report and the actual FBSEP lessons developed for inclusion in the program of instruction. Following each table is an explanation of and the rationale for any discrepancies which occur between the "planned" and the "actual" list of lessons.

TABLE 1
SUGGESTED FBSEP LESSONS (AS LISTED IN DESIGN REPORT) VS. ACTUAL FBSEP LESSONS
ANNEX A

SUGGESTED FBSEP LESSONS	ACTUAL FBSEP LESSONS
none	A-01 Understanding FBSEP
C-01 Identify Parts and Functions of Study Guide	incorporated in A-02
C-02 Identify Sequence of Events Within a Lesson	incorporated in A-02
C-03 Identify Parts, Functions, and Events Within a Lesson	A-02 Identifying Parts, Functions, and Sequence in Lesson Study Guide
C-04 same	A-03 Identifying Training Aides and Devices Used in the Course
C-05 Identify Parts and Functions Across Lessons	incorporated in A-04
C-06 Identify Sequence of Events Across Lessons	incorporated in A-04
C-07 Identify Parts, Functions and Events Across Lessons	A-04 Identifying Parts, Functions, and Sequence Across Lessons
C-08 same	A-05 Understanding the Instructional System
C-09 same	A-06 Memorizing Meanings of Prowords
C-10 same	A-07 Memorizing Meanings of Prosings
C-11 same	A-08 Identifying Relationships Between Prowords and Prosings
C-12 same	A-09 Comparing and Contrasting Radio and Tele-type Procedures
C-13 Compare and Contrast Related Equipment	none

same = no change from the "planned" lesson to the "actual" lesson

Modifications Instituted During Developmental Process

Reclassification of Study Skills as Annex A:

Originally C Annex was slated as study skills. Since good study skills are essential for all learning, it's logical to designate them as preceding all others. These skills were, therefore, reclassified as A Annex. This is shown in Table 1.

Addition of A-01:

Lesson A-01 was initiated to aid the student in understanding what FBSEP is, why he was selected as a candidate for it, and how it will help him with the AIT course. It is hoped that this lesson will help him develop a favorable attitude toward FBSEP instruction and motivate him to do well in these lessons.

Unification of C-01, C-02, and C-03 into A-02:

Development of the instructional material associated with the parts, functions, and events which occur within the AIT lesson study guides revealed that the amount of required material did not warrant three separate lessons. It became apparent that it would be more beneficial to present the explanation in one lesson. This also unifies for the student the over-all picture

of the format of the study guide. Consequently, what was initially planned as FBSEP lessons C-01, C-02, and C-03 was developed as one lesson, A-02.

Unification of C-05, C-06, and C-07 into A-04:

The situation explained in the previous paragraph also applies to the parts, functions, and sequence of events across lessons in the AIT course. Consequently, the material originally scheduled for lesson C-05, C-06, and C-07 was combined into one lesson, A-04.

Elimination of C-13:

The planned content of C-13 was to compare and contrast related equipment, specifically radio and teletypewriter equipment. Lesson B-16, one of a cluster of lessons on integrating information to form concepts, deals extensively with radio sets and teletypewriter sets. This presentation is more than adequate. Additional explanation in C-13 would be redundant and might serve only to cloud the issue for the student. Lesson C-13 was, therefore, dropped from the FBSEP schedule.

TABLE 2
SUGGESTED FBSEP LESSONS (AS LISTED IN DESIGN REPORT) VS. ACTUAL FBSEP LESSONS
ANNEX B

SUGGESTED FBSEP LESSONS	ACTUAL FBSEP LESSONS
none	B-01 Identifying the Organizing System of a Soldier's Manual
none	B-02 Using the Organizing System in a Soldier's Manual
B-04 same	B-03 Identifying the Organizing System of a Technical Manual
B-01 same	B-04 Using the Organizing System in a Technical Manual
B-02 same	B-05 Finding Information in a Table of Contents
B-03 same	B-06 Finding Information in an Index
B-05 same	B-07 Finding Information in Text
B-06 same	B-08 Finding Information in an Illustration
B-11 same	B-09 Finding Information in Tables
B-12 same	B-10 Finding Information in Diagrams
B-13 same	B-11 Finding Information in Manuals
B-14 same	B-12
	B-13
	B-14
	B-15
	B-16
	Matching Terms and Their Definitions

TABLE CONTINUED

same = no change from the "planned" lesson to the "actual" lesson

Table 2 (Cont.)

SUGGESTED FBSEP LESSONS	ACTUAL FBSEP LESSONS
B-15 same	B-17 Integrating Information to Form Concepts; Net, CEOI B-18 Message, Radio Sets, Teletypewriter Sets B-19 Antenna, Generator B-20 Security, ECM/ECCH B-21 Operator and Maintenance MOS, Manuals B-22 Comprehending Reading Passages on Topics Related to Radio Teletype Communication B-23 B-24 B-25 B-26 B-27
B-16 same	
B-17 same	B-28 Deciding If Information Is Missing in a Message
B-18 same	B-29 Deciding If Information in a Message Is In Error
B-19 same	B-30 Detecting Problems in Messages
B-07 same	B-31 Finding Information in Illustrations Using Text
B-08 same	B-32 Identifying Parts of Equipment Using Illustration
B-10 Finding Information in Text, Picture and Equipment	B-33 Performing a Procedure Using Illustration/Text
B-09 Match Text with Equipment	incorporated in B-33

same = no change from the "planned" lesson to the "actual" lesson

Reordering of Lessons in Annex B:

The order of lessons was revised to better allow for the sequential building of interrelated skills. A look at the hierarchal chart for Annex B, included in Section 2 of this report, will more clearly demonstrate these relationships. A more detailed explanation can also be found in the Analysis Report.

Addition of B-01 and B-02:

Since a soldier should be familiar with the use of a Soldier's Manual, two lessons were instituted to aid him in this task. B-01 deals with identifying the organizing system of a soldier's manual, and B-02 with how to use this system to find information. These two lessons closely parallel the format and intent of B-03 and B-04 which relate to technical manuals.

At one point during the developmental process, one lesson on the soldier's manual and one lesson on the technical manual were designed. Each lesson was broken up into two parts, the first part on identifying the organizing system and the second part on using this system. Developmental trials proved this to be too cumbersome; students were overwhelmed and discouraged by the amount of material presented to them at one time. Consequently, the organizing system of a soldier's manual is sectioned into two lessons, B-01 and B-02, and the organizing system of a technical manual is presented as two lessons, B-03 and B-04.

In addition, in B-07, Finding Information in Text, the student compares the two types of manuals - soldier's and technical - thereby seeing the similarities and differences between the two organizing systems. He is also asked to apply this knowledge to practical situations.

Division of B-14 Into 5 Lessons:

The topic, Matching Terms with Their Definitions, originally numbered B-14, was scheduled for one 14-hour lesson. The number of terms involved made this approach unmanageable, both for the student and the learning supervisor. The content was, therefore, split into five lessons, each consisting of about 20 terms. This made the learning activities more meaningful and the total learning process more comprehensible. The student is also expected to apply his knowledge of these terms in the reading comprehension passages presented in FBSEP lessons B-22 through B-27.

The basic skills terms were identified during the task analysis phase of this project. For a lesson-by-lesson listing of these terms see the Lesson Specifications, included in appendix C of this report, for lessons B-12 through B-16.

Division of B-15 Into 5 Lessons:

Integrating Information to Form Concepts (originally B-16) was sectioned into five separate lessons for reasons similar to those described in the previous paragraph. By receiving the information in smaller portions, the student is not overwhelmed with a voluminous amount of material at one time. Each lesson allows him ample opportunity to firmly grasp a concept and to practice it before proceeding to a new concept. Each lesson test is also partitioned by concept.

B-17 deals with the concepts net and CEOI; B-18 with messages, radio sets, and teletypewriter sets; B-19 with antennas and generators; B-20 with security and ECM/ECCM; and B-21 with operator vs. maintenance MOS and manuals. These 11 key concepts were selected for inclusion in FBSEP since, during observations, they were identified as major problem areas in the 05C AIT training program. (See the Analysis Report for more details.)

Division of B-16 Into 6 Lessons:

In a similar fashion, the original B-16 dealing with comprehending reading passages was also broken up into sections. Each of the first five sections was designed to complement the corresponding "concept" lesson. For example, the reading passages in B-22 concentrate on the concepts net and CEOI developed in B-17; the

reading passages in B-23 concentrate on the concepts developed in B-18; etc. In each of these five "reading" lessons, B-22 through B-26, the student practices the skill of inferencial reading comprehension. The last of this cluster of lessons, B-27, is in reality not a lesson but the test for this cluster.

Each of the reading passages also emphasizes the use of the vocabulary words presented in B-12 through B-16.

Unification of B-10 and B-09 Into B-33:

The operational definition of the original B-10 demanded the finding of information combining the use of text, picture, and equipment. The operational definition of the original B-09, Match Text with Equipment, involved performing a procedure given a textual description. It is more relevant for the student to be able to apply the information gathered from a textual description and/or an illustration to perform a certain procedural task. An appropriate lesson, therefore, was designed. For more details, refer to the Lesson Specifications (included in Appendix C of this report) for B-33.

TABLE 3
SUGGESTED FBSEP LESSONS (AS LISTED IN DESIGN REPORT) VS. ACTUAL FBSEP LESSONS
ANNEX C

SUGGESTED FBSEP LESSONS	ACTUAL FBSEP LESSONS
A-01 same	C-01 Tracing Letters and Numbers in a Chart
A-02 same	C-02 Pronouncing Numbers and Letters Using a Phonetic Alphabet Chart
A-03 same	C-03 Arranging Single Letters in Alphabetic Order
A-04 same	C-04 Arranging Letter-Number-Letter Groups in Alphanumeric Order
A-05 same	C-05 } C-06 } Spelling Commonly Used Military Words C-07 }
A-06 same	C-08 Printing Text of Message Presented Orally
A-07 same	C-09 Filling Out Forms
A-08 same	C-10 Reading Aloud Text of Printed Message

same = no change from the "planned" lesson to the "actual" lesson

Reclassification of Language Skills as Annex C:

See the explanation regarding Reclassification of Study Skills as Annex A.

Division of A-05 Into 3 Lessons:

The spelling of commonly used military words, originally numbered A-05, was scheduled for one lesson. Analysis led to a list of 90 words. In order to make the content more comprehensible and more manageable, it was divided into three lessons, each consisting of 30 words.

The origin of this list of 90 words is described below. The words are listed by lesson. Thirty-two of the words are terms taken from the task analysis of the AIT lessons and which comprise part of the vocabulary words taught in FBSEP lesson B-12 through B-16, Matching Terms with Their Definitions; these are designated with "BV." Messages that were dictated as a normal part of the AIT course were analyzed for frequency of spelling errors and 39 terms were, consequently, selected for inclusion as FBSEP spelling words; they are designated "DM." Thirteen words were selected from sample messages supplied as part of the government-furnished material; these are noted with "GFM." Six were suggested by subject matter experts; these are designated "SME." The following table shows the breakdown.

TABLE 4
ORIGIN OF FBSEP SPELLING WORDS

C-05		C-06		C-07	
1. abbreviation	BV	31. adequate	BV	61. acknowledge	BV
2. ammunition	GFM	32. request	GFM	62. available	DM
3. function	BV	33. subsequent	BV	63. civil	DM
4. interrogation	BV	34. receive	DM	64. compromise	BV
5. information	DM	35. receipt	BV	65. consider	DM
6. execution	GFM	36. height	BV	66. cryptographic	DM
7. destruction	DM	37. length	DM	67. curtail	GFM
8. deflection	BV	38. accounting	BV	68. deficient	BV
9. deception	BV	39. announce	DM	69. deployment	DM
10. obstruction	BV	40. appropriate	BV	70. designated	DM
11. promulgation	DM	41. artillery	SME	71. device	BV
12. repetition	DM	42. assign	GFM	72. eliminate	DM
13. revocation	BV	43. effective	BV	73. employ	DM
14. ventilation	BV	44. effort	DM	74. express	DM
15. operational	DM	45. immediately	DM	75. forfeiture	BV
16. intrusion	BV	46. necessity	DM	76. general	BV
17. suspension	BV	47. traffic	DM	77. implement	BV
18. refill	GFM	48. frequency	DM	78. minimize	DM
19. refill	GFM	49. policy	DM	79. mobile	DM
20. precede	BV	50. priority	SME	80. multiple	BV
21. proceed	GFM	51. preliminary	BV	81. negative	GFM
22. supersede	BV	52. resource	DM	82. originate	BV
23. procedure	DM	53. evaluate	DM	83. platoon	GFM
24. authentic	BV	54. evacuate	DM	84. receptacle	BV
25. authority	BV	55. tactics	DM	85. relevant	DM
26. auxiliary	BV	56. capture	DM	86. replacement	SME
27. message	GFM	57. capability	DM	87. response	DM
28. shortage	GFM	58. coordinate	SME	88. routine	GFM
29. supply	SME	59. equipment	DM	89. usefulness	DM
30. verify	BV	60. official	DM	90. weather	SME

BV = from basic skills vocabulary list; GFM = from government-furnished materials
DM = from dictated OSC AIT messages; SME = from subject matter experts

TABLE 5
SUGGESTED FBSEP LESSONS (AS LISTED IN DESIGN REPORT) VS. ACTUAL FBSEP LESSONS
ANNEX D

SUGGESTED FBSEP LESSONS	ACTUAL FBSEP LESSONS
D-01 same	D-01 Changing Civilian Time to Military Time
D-02 same	D-02 Adding Hours to Military Time
D-03 same	D-03 Subtracting Hours from Military Time
D-04 same	D-04 Adding or Subtracting Hours Moving Across Days
D-05 same	D-05 Adding Two Numbers Which Contain Decimals
D-06 same	D-06 Subtracting Two Numbers Which Contain Decimals
D-07 same	D-07 Finding 10% of a Number
D-08 same	D-08 Finding Numbers Which Are 10% Above and 10% Below a Given Number
D-09 same	D-09 Multiplying a 5-Digit Number by a 1-Digit Number
D-10 same	D-10 Subtracting 5 or 6-Digit Numbers
none	D-11 Dividing 7-Digit Numbers by 6-Digit Numbers
D-14 same	D-12 Rounding Off a Number Containing 2 Decimal Places to the Nearest Tenth
D-13 same	D-13 Dividing 468 by a Number Containing a Decimal
D-15 same	D-14 Dividing 468 by a Number Containing a Decimal and Round Off the Answer to the Nearest Tenth
D-06 Round Off a Frequency to the Nearest Thousandth	none
D-07 Find Ten Percent of a Frequency and Round Off Answer to Nearest Thousandth	none

same = no change from the "planned" lesson to the "actual" lesson

Reordering of Lessons in Annex D:

The order of lessons was revised to more closely correspond to the grade-equivalency of the skill involved. The revision was a slight one and only involved the renumbering of lessons within the same level of the learning hierarchy. A look at the map for Annex D (included in Section 2 of this report) will more clearly demonstrate this relationship. A more detailed explanation can also be found in the Analysis Report.

Addition of D-11:

Development of Lesson D-13, Dividing 468 by a Number Containing a Decimal, revealed a prerequisite basic skill not previously identified, i.e. dividing 468 by a whole number. In response to this finding, Lesson D-11 was designed, developed, and incorporated into the FBSEP math curriculum.

Elimination of D-06 and D-07:

The initial analysis of one of the AIT skills associated with AIT Lesson M-02 was misidentified. Redefining the appropriate AIT skill necessitated reexamination of the prerequisite basic skills involved. It was determined that the two FBSEP skills involving rounding off numbers to the nearest thousandth were not functional for the 05C AIT Course. A detailed explanation

of the findings can be found in the Analysis Report. The end result was the dropping of the two FBSEP lessons involving rounding off to the nearest thousandth, i.e. D-06 and D-07.

The new analysis of M-02 led to the identification of three new prerequisite basic skills: deciding if a number is greater than 1; comparing the value of two numbers; and deciding if a number is between two other numbers. The trial run of the Diagnostic Test, however, indicated that less than one percent of the students failed to meet the standard on the test items referenced to these basic skills. The corresponding FBSEP lessons are, consequently, not included as part of the FBSEP curriculum. Since these skills, nonetheless, are prerequisite for an AIT task, a brief explanation of them is incorporated in FBSEP Lesson D-08. Included is their connection with the appropriate AIT task and with other related FBSEP math skills. The presentation also includes a few examples and their answers and has a direction to the student that if he does not understand these examples to see his learning supervisor for assistance. Lesson D-08 was selected for this inclusion since it is the highest order math objective supporting the corresponding AIT task. Once again, refer to the Analysis Report for more details.

Lesson Specifications

Appendix C of this report contains the Lesson Specifications for each 05C FBSEP lesson included in the program of instruction. The Learning Specifications were used by the developer to determine applicable learning guidelines and to specify learning activities that must take place to make sure that instruction is as effective and efficient as possible and to guarantee its relation to task performance.

Each Lesson Specification includes:

- (1) the lesson number and title
- (2) a list of any prerequisite FBSEP lessons which must be taken prior to the lesson in question
- (3) an estimate of the number of hours required to complete the lesson
- (4) the type of lesson, i.e. self or group paced and, for group paced, the media format
- (5) the objective of the lesson stated in student terms
- (6) the standard the student must meet to successfully complete the lesson
- (7) a sample test item

- (8) the generality, a concise and well organized list of all the information to be learned or all the steps necessary to perform the objective
- (9) an item pool indicating the number of questions or problems contained in each section of the lesson.

For the reader of this report, these Lesson Specifications may be viewed as a concise summary of the content, the intent, and the approach of each lesson. For a detailed explanation of the teaching and learning strategies of each lesson, refer to the Course Management Plan.

SECTION 2: CLUSTERING OF BASIC SKILLS LESSONS

The previous section of this report describes the 66 FBSEP lessons selected for inclusion in the Functional Basic Skills Education Program. This section shows how they have been clustered together and how they relate to each other.

To begin with the 66 lessons have been clustered into four annexes or categories. Annex A consists of 9 lessons that have been classified as Study Skills; Annex B is designated as Reading Skills and consists of 33 lessons; Annex C contains 10 Language Skill lessons; and Annex D consists of 14 Math lessons.

The lessons within each annex are arranged in hierarchal order to demonstrate their interrelationship with enabling lessons and with higher level lessons. The rationale for these revised learning hierarchies is explained in the Analysis Report. A copy of each of the four learning hierarchies follows.

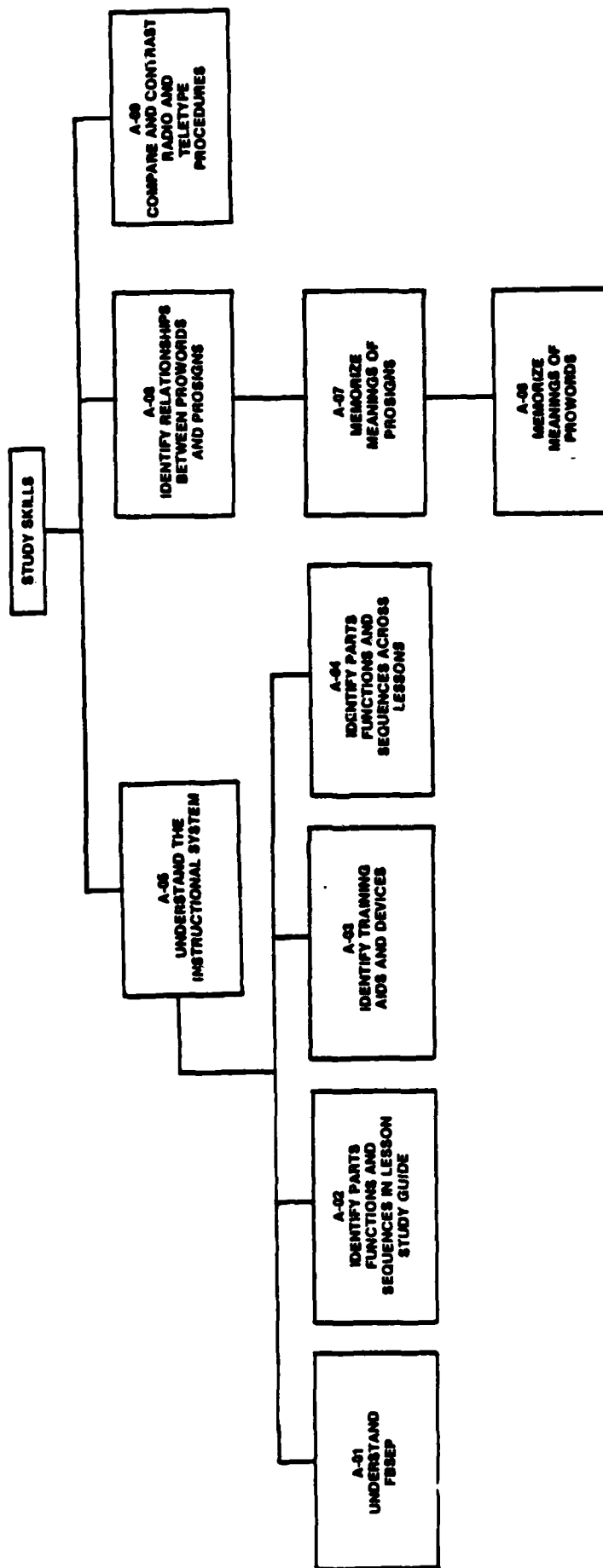


Figure 1: Learning Hierarchy Annex A

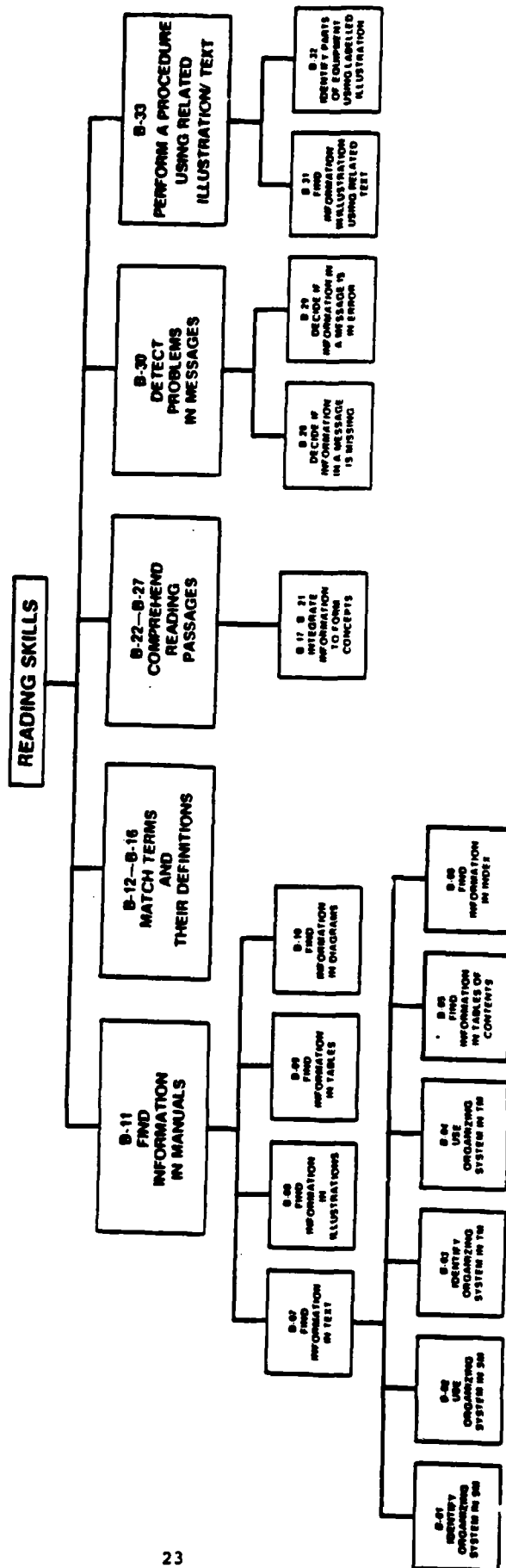


Figure 2: Learning Hierarchy Annex B

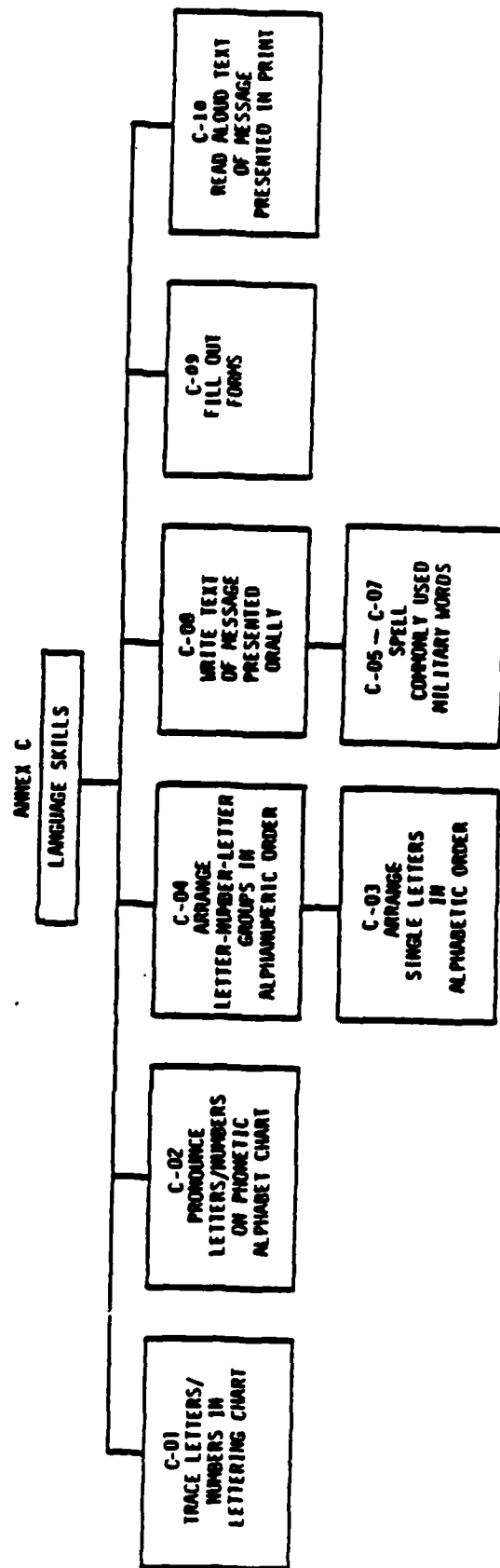


Figure 3: Learning Hierarchy Annex C

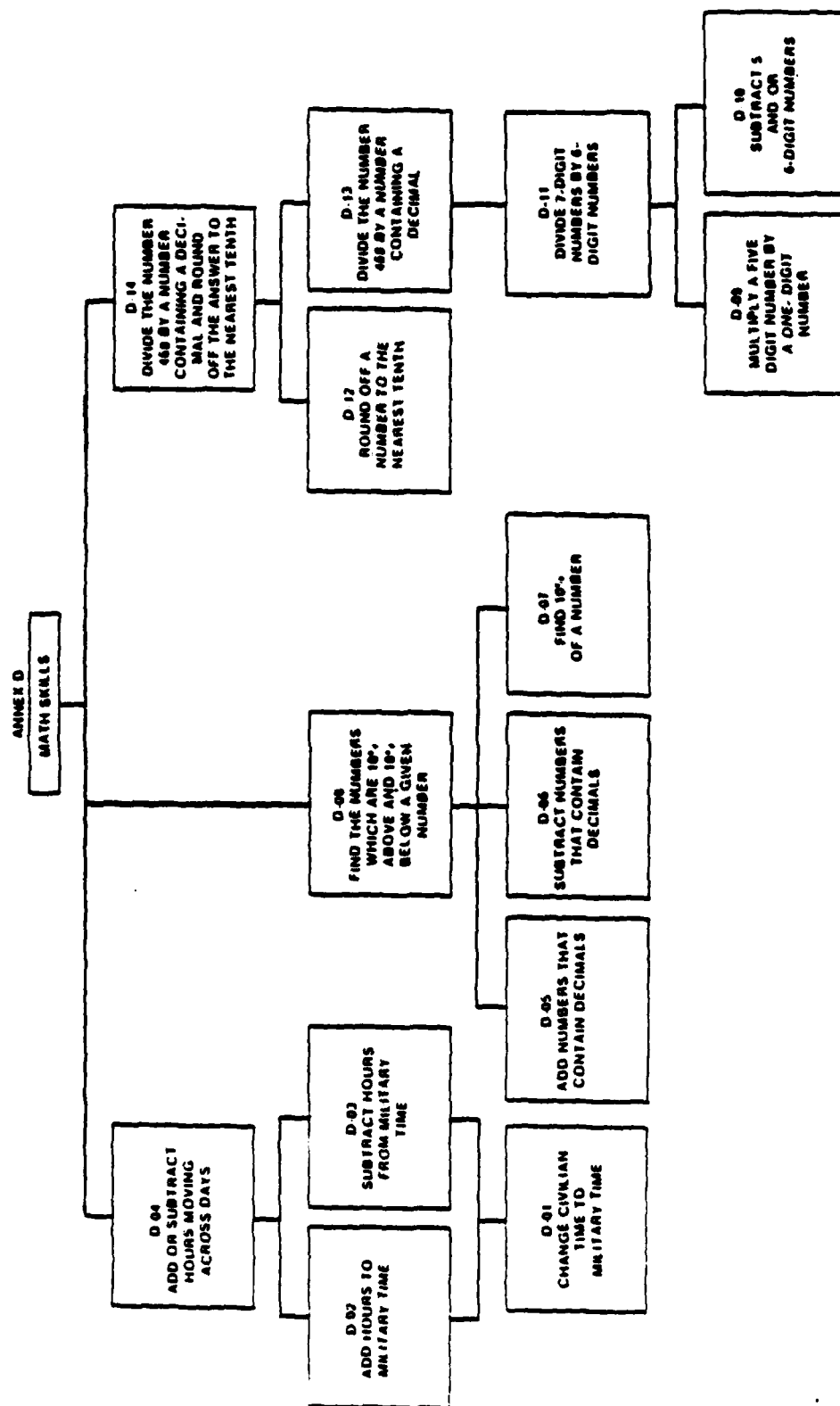


Figure 4: Learning Hierarchy Annex D

SECTION 3: RELATIONSHIP BETWEEN FBSEP LESSONS AND AIT LESSONS

The prerequisite basic skills lesson and 05C AIT lesson(s) which each supports are shown in the following table. The AIT lessons are listed in the sequence in which they are currently taught. The FBSEP lessons are listed in numerical order by annex.

For each FBSEP lesson, X's are placed under the columns listing the corresponding AIT lessons that it supports. Those classified as "other" are not identified with a particular AIT lesson or a group of AIT lessons but support all AIT lessons.

The relationship between the FBSEP lessons and the AIT lessons was initially presented in the Design Report. The following table represents the revised and final version of this relationship demonstrating the modifications resulting from the developmental process.

One major change has taken place. The lesson on finding information in text was originally operationally defined to include using only a textual extract from a technical manual and finding verbatim information in the extract. Since inferential reading comprehension is the object of lessons B-22 through B-27 and since it is more functional to use an entire

manual rather than an extract and to first determine the location of the appropriate textual material in the manual, the objective of this lesson was redefined. B-07 now involves using the organizing system, the table of contents, the index, and textual information given a textual manual. This modification necessitated reevaluating the AIT lessons which this basic skill supports. Analysis shows that this "new" skill is no longer applicable to AIT lessons H-01 and H-06. The X's corresponding to these columns have been eliminated from the table.

A question may arise as to the difference in the objective of B-07 and the objective of B-11, Finding Information in Manuals. B-11 employs all the skills of B-07 plus finding information in tables and illustrations. Examination of the Lesson Specifications included in Appendix C of this report will yield more details.

A summary of the relationship of each FBSEP lesson to the AIT lessons which it supports is presented in Table 6.

TABLE 6
PREREQUISITE FESEP LESSONS FOR
05C10 AIT LESSONS

[illegible]

05C10 AIT LESSONS

[illegible]

TABLE 6 (Cont.)

[illegible]

TABLE 6 (Cont.)
PREREQUISITE FBSEP LESSONS FOR
05C10 AIT LESSONS

[illegible]

TABLE 6 (Cont.)
PREREQUISITE FBSEP LESSONS FOR
05C10 AIT LESSONS

ANNEX D: MATH SKILLS	AIT LESSON																									
	H						J			I			K			N			M			L			Other	
	1	2	3	4	5	6	1	2	3	1	1	2	1	2	3	1	4	5	6	1	2	3	2	3		
D-01 Changing civilian time to military time			X																							
D-02 Adding hours to military time			X																							
D-03 Subtracting hours from military time			X																							
D-04 Adding or subtracting hours moving across days																										
D-05 Adding two numbers which contain decimals																										
D-06 Subtracting two numbers which contain decimals																										
D-07 Finding 10% of a number																										
D-08 Finding numbers which are 10% above & below a given number																										
D-09 Multiplying a 5-digit number by a 1-digit number																										
D-10 Subtracting 5 or 6-digit numbers																										
D-11 Dividing 7-digit numbers by 6-digit numbers																										
D-12 Rounding off a number containing two decimal places to the nearest 10th																										
TABLE CONTINUED																										

SECTION 4: SEQUENCING OF FBSEP LESSONS AND AIT LESSONS

The original integration of FBSEP and AIT lessons, proposed in the Design Report, aimed at the ideal educationally beneficial situation placing the prerequisite basic skills lesson as close as possible to the AIT lesson it supports. It required 18 spots throughout the AIT course at which FBSEP lessons would be offered. AIT course administrators advised the developers that this approach would be too difficult to administer and manage.

An alternative pinpointing six places within the AIT schedule for FBSEP instruction was proposed in the preliminary draft of the Course Management Plan. Government review of this material found this schedule unacceptable. Four places were agreed upon, with as many lessons as possible being front-loaded.

Forty-seven FBSEP lessons are front-loaded, occurring prior to any AIT instruction. This arrangement should greatly facilitate administration.

Three FBSEP lessons, A-07, Memorizing Meaning of Prosigns; A-08, Identifying Relationships Between Prowords and Prosigns; and A-09, Comparing and Contrasting Radio and Teletyp. Procedures have been selected for inclusion prior to AIT Annex J because they are directly supportive of teletype material presented in J-annex (see Table 6).

Technical manuals are primarily used in I-01 and in subsequent AIT lessons (see Table 6). Consequently, the FBSEP lessons related to technical manuals are deferred until this point in the schedule. To be specific, six FBSEP lessons are slated prior to AIT lesson I-01. These are: B-03 and B-04, Identifying and Using the Organizing System in a Technical Manual; B-06 Finding Information in an Index; B-07 Finding Information in Text; B-10 Finding Information in Diagrams; and B-11 Finding Information in Manuals.

The question may arise as to why B-05 regarding table of contents, B-08 regarding illustrations, and B-09 regarding tables are not also deferred to this location in the schedule. A check of Table 6 reveals that these skills are needed earlier in the AIT course. B-05 applies not only to technical manuals but to the CEOI, a document used in H Annex; illustrations and tables also appear in AIT lesson study guides used in H Annex. These three lessons were, therefore, included in the front-loaded portion of the course.

Ten FBSEP math lessons are scheduled between AIT lessons M-01 and N-01. Another check of Table 6 will show that these math skills support technical skills presented in M and N Annex. For math skills to be most effective, they should be taught as close as possible to the "real life" application of that

skill. Consequently, these math lessons are deferred until a point in the AIT schedule when they will be applied.

In summary, Figure 5 shows the integration of FBSEP and AIT lessons.

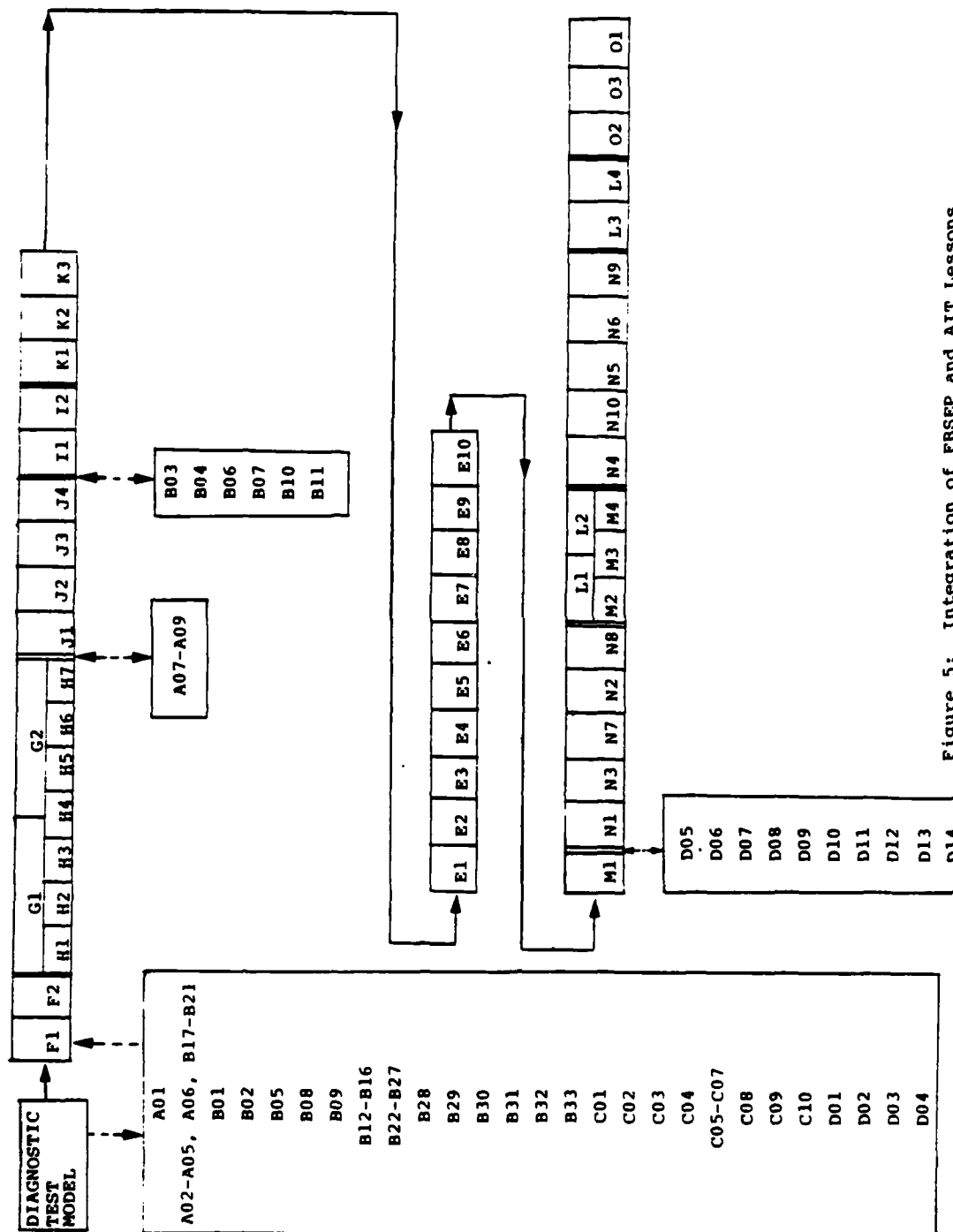


Figure 5: Integration of FBSEP and AIT Lessons

A few items are worth noting. In Figure 5, FBSEP lessons listed on a single line are assigned to a student as a group based on the results of his diagnostic test or on the fact that one FBSEP lesson is a prerequisite for another FBSEP lesson. Each of the other FBSEP lessons are assigned on an individual basis.

How the diagnostic test is used as a prescription for assignment to FBSEP lessons is explained in detail in the report on the Diagnostic Test and Test Model.

Using FBSEP lessons as prerequisites for other FBSEP lessons has been kept to a minimum. Study skills lessons A-02 through A-04 deal with the various components of the instructional system of 05C10 AIT Course; A-05 deals with the overall instructional system itself. Consequently, these are clustered together as a group and are assigned as a group based on the results of a student's overall score on the Diagnostic Test. A-01 dealing with understanding FBSEP is given to any student who is assigned to any FBSEP instruction.

Lessons B-12 through B-16 involve basic vocabulary terms and their definitions. This represents one skill that has merely been broken up into five lessons. This group of lessons is, therefore, considered as a unit and is assigned as such.

Lessons B-17 through B-21 are related to integrating information to form concepts. B-17 presents the format to be used in each of the subsequent lessons and is, consequently, a prerequisite skill for each of the others. The overall results of the Diagnostic Test are used to assign a student to this cluster of lessons as a group. If a student were not initially assigned to these lessons but was later assigned as a result of poor performance in the AIT course, each of the lessons B-17 through B-21 could be assigned on an individual basis by topic. B-17 would, nonetheless, be required first as a prerequisite skill. (See Section VII of the Course Management Plan, Recycle Criterion and Procedures, for processes used in assignment of students to additional FBSEP lessons.)

Lessons B-22 through B-27 deal with reading comprehension. The first lesson in this series explains the strategies involved and is, therefore, prerequisite for each of the other lessons in the series. In addition, each reading passage is designed to correspond to a concept explained in the "concept" cluster, B-17 through B-21. Consequently, each reading comprehension lesson has as its prerequisite B-22, on the strategies involved, and the "concept" lesson corresponding to particular reading passage. The last lesson of this series is the test for the whole cluster and this cluster is assigned as a group based on a student's performance on a series of criterion-referenced questions on the Diagnostic Test.

Lessons C-05 through C-07 deal with spelling military words. Once again this represents one basic skill which has merely been divided into three lessons. The three lessons are assigned as a group.

For more particulars regarding any of these lessons, the reader is referred to the Teaching and Learning Strategies presented in the Course Management Plan.

The following table, arranged by annex, summarizes the prerequisites established for each of the FBSEP lessons.

TABLE 7
PREREQUISITE FOR FBSEP LESSONS
ANNEX A

LESSON	PREREQUISITES
A-01 Understanding FBSEP	
A-02 Identifying Parts, Functions, Sequence in Lesson Study Guide	
A-03 Identifying Training Aids & Devices Used in Course	A-02
A-04 Identifying Parts, Functions, Sequence Across Lessons	A-02, A-03
A-05 Understanding the Instructional System	A-02, A-03, A-04
A-06 Memorizing Meanings of Prowords	
A-07 Memorizing Meanings of Prosigns	
A-08 Identifying Relation between Prowords & Prosigns	
A-09 Comparing & Contrasting Radio & Teletype Procedures	
Table Continued	

TABLE 7 (Cont.)
PREREQUISITES FOR FBSEP LESSONS
ANNEX B

LESSON	PREREQUISITES
B-01 Identifying the Organizing System of a Soldier's Manual	
B-02 Using Organizing System in a Soldier's Manual	
B-03 Identifying the Organizing System of a Technical Manual	
B-04 Using Organizing System in a Technical Manual	
B-05 Finding Information in a Table of Contents	
B-06 Finding Information in an Index	
B-07 Finding Information in Text	
B-08 Finding Information in an Illustration	
B-09 Finding Information in Tables	
B-10 Finding Information in Diagrams	
B-11 Finding Information in Manuals	
B-12 Matching Terms & Their Definitions	
B-13 Matching Terms & their Definitions	B-12
B-14 Matching Terms & their Definitions	B-12, B-13
B-15 Matching Terms & their Definitions	B-12, B-13, B-14
B-16 Matching Terms & their Definitions	B-12, B-13, B-14, B-15
Table Continued	

TABLE 7 (Cont.)
PREREQUISITES FOR FBSEP LESSONS
ANNEX B

LESSON	PREREQUISITES
B-17 Integrating Information to Form Concepts-Net, CEOI	
B-18 Integrating Information to Form Concepts-Messages, Radio Sets, Teletypewriter Sets	B-17
B-19 Integrating Information to Form Concepts-Antennas, Generators	B-17
B-20 Integrating Information to Form Concepts-Security, ECM/ECCM	B-17
B-21 Integrating Information to Form Concepts-Operator & Maintenance MOS, Manuals	B-17
B-22 Comprehending Reading Passages on Topics Related to Radio and Teletype Communication	B-17
B-23 Comprehending Reading Passages on Topics Related to Radio and Teletype Communication	B-18, B-22
B-24 Comprehending Reading Passages on Topics Related to Radio and Teletype Communication	B-19, B-22
B-25 Comprehending Reading Passages on Topics Related to Radio and Teletype Communication	B-20, B-22
B-26 Comprehending Reading Passages on Topics Related to Radio and Teletype Communication	B-21, B-22
B-27 Comprehending Reading Passages on Topics Related to Radio and Teletype Communication	B-22 through B-26
Table Continued	

TABLE 7 (Cont.)
PREREQUISITES FOR FBSEP LESSONS
ANNEX B

LESSON	PREREQUISITES
<p>B-28 Deciding if Information is Missing in a Message</p> <p>B-29 Deciding if Information in a Message is in Error</p> <p>B-30 Detecting Problems in Messages</p> <p>B-31 Finding Information in Illustration Using Text</p> <p>B-32 Identifying Parts of Equipment Using Illustration</p> <p>B-33 Performing a Procedure Using Illustration/Text</p> <p style="text-align: center;">Table Continued</p>	

TABLE 7 (Cont.)
PREREQUISITES FOR FBSEP LESSONS
ANNEX C

LESSON	PREREQUISITES
C-01 Tracing Letters and Numbers in a Chart	
C-02 Pronouncing Letters and Numbers in a Chart	
C-03 Arranging Single Letters in Alphabetical Order	
C-04 Arranging Letter-Number-Letter Groups in Alphanumeric Order	
C-05 Spelling Commonly Used Military Words	
C-06 Spelling Commonly Used Military Words	C-05
C-07 Spelling Commonly Used Military Words	C-05, C-06
C-08 Printing Text of Message Presented Orally	
C-09 Filling Out Forms	
C-10 Reading Aloud Text of Printed Message	
Table Continued	

TABLE 7 (Cont.)
PREREQUISITES FOR FBSEP LESSONS
ANNEX D

LESSON	PREREQUISITES
D-01 Changing Civilian Time to Military Time	
D-02 Adding Hours to Military Time	
D-03 Subtracting Hours from Military Time	
D-04 Adding or Subtracting Hours Moving Across Days	
D-05 Adding Two Numbers which Contain Decimals	
D-06 Subtracting Two Numbers which Contain Decimals	
D-07 Finding 10% of a Number	
D-08 Finding Numbers which are 10% Above & Below a Given Number	
D-09 Multiplying a 5-digit Number by a 1-digit	
D-10 Subtracting 5 or 6-digit Numbers	
D-11 Dividing 7-digit Numbers by 6-digit Numbers	
D-12 Rounding off a Number Containing Two Decimal Places to the Nearest 10th	
D-13 Dividing 468 by a Number Containing a Decimal	
D-14 Dividing 468 by a Number Containing a Decimal and Rounding off the Answer to the Nearest 10th	

SECTION 5: TIME ESTIMATE FOR EACH FBSEP LESSON

The following tables show each FBSEP lesson and the estimated time for a student to complete the lesson. It must be understood that for self paced lessons in particular this is an estimate of the "average" amount of time that may be required — some students may successfully finish the lesson in less time; others may require more time. For group paced lessons the time may also vary depending upon the number and kinds of questions posed by the students. The main function of these time estimates should be as a tool in establishing guidelines for course administration and management.

There are two reasons why some of the estimates which appear in these tables may be different than those initially proposed in the Design Report. Either the development of the lesson indicated the original estimate to be instructionally unsound or the developmental trial of the lesson indicated it to be incompatible with actual performance time required.

Each of the following tables represents an annex of FBSEP lessons; each contains a listing of the initial time estimates, the final time estimates, and the reason for each discrepancy. Following each table is a more detailed explanation of some of the finer points presented in the table.

TABLE 8
TIME ESTIMATES FOR FBSEP LESSONS
ANNEX A

FBSEP LESSON	INITIAL ESTIMATE (HOURS)	FINAL ESTIMATE (HOURS)	REASON FOR MODIFICATION
A-01 Understanding FBSEP	—	1	D
A-02 Identifying Parts, Functions, and Sequence in Lesson Study Guide	3	1	D
A-03 Identifying Training Aids and Devices Used in the Course	2	1	D
A-04 Identifying Parts, Functions, and Sequence Across Lessons	3	2	D
A-05 Understanding the Instructional System.	1	1	
A-06 Memorizing Meanings of Prowords	3	3	
A-07 Memorizing Meanings of Prosigns	3	4	D
A-08 Identifying Relationships Between Prowords and Prosigns	3	3	
A-09 Comparing and Contrasting Radio and Teletype Procedures	4	6	T

D = development of lesson

T = trial of lesson

Comments Regarding Modifications of Time Estimates in Annex A

As explained in Section 1 of this report, A-02 was originally slated as three lessons. Each lesson was scheduled for an hour. Further analysis of the content, design, and format of this lesson resulted in revising the time estimate as well. A similar situation exists with lesson A-04.

Although A-07 on prosigns closely parallels A-06 on prowords, educational specialists advise that, since prosigns involve symbols (or abbreviations) rather than words, grasping, practicing, and retaining this material will require more effort and, consequently, more time than that required for prowords.

The time estimate for A-09 was revised as a result of responses to a student questionnaire used as part of the developmental trial process for each lesson. These comments indicated that students required more independent time to study the material presented during the group paced portion of this lesson. (See Appendix B for a copy of both the instructor and student questionnaires used during the developmental trial phase of this project.)

TABLE 9
TIME ESTIMATES FOR FBSEP LESSONS
ANNEX B

FBSEP LESSON	INITIAL ESTIMATE (HOURS)	FINAL ESTIMATE (HOURS)	REASON FOR MODIFICATION
B-01 Identifying the Organizing System of a Soldier's Manual		2	
B-02 Using the Organizing System in a Soldier's Manual		1	
B-03 Identifying the Organizing System of a Technical Manual	2	2	
B-04 Using the Organizing System in a Technical Manual	2	2	
B-05 Finding Information in a Table of Contents	2	1	T
B-06 Finding Information in an Index	2	2	
B-07 Finding Information in Text	4	3	D
B-08 Finding Information in an Illustration	4	2	T
B-09 Finding Information in Tables	8	2	D & T
B-10 Finding Information in Diagrams	4	2	T
B-11 Finding Information in Manuals	1	3	D
Table Continued			

D = development of lesson

T = trial of lesson

TABLE 9 (Cont.)
TIME ESTIMATES FOR FBSEP LESSONS
ANNEX B

FBSEP LESSON	INITIAL ESTIMATE (HOURS)	FINAL ESTIMATE (HOURS)	REASON FOR MODIFICATION
B-12 } B-13 } B-14 } Matching Terms with their Definitions B-15 } B-16 }	14	2 2 2 2 2 10	D
B-17 } B-18 } B-19 } Integrating Information to Form Concepts B-20 } B-21 }	16	3 4 2 2 2 13	D & T
B-22 } B-23 } B-24 } Comprehending Reading Passages on Topics Related B-25 } to Radio Teletype Communications B-26 } B-27 }	11	2 2 2 2 2 1 11	
TOTAL:			

Table Continued

D = development of lesson
T = trial of lesson

TABLE 9 (Cont.)
TIME ESTIMATES FOR FBSEP LESSONS
ANNEX B

FBSEP LESSON	INITIAL ESTIMATE (HOURS)	FINAL ESTIMATE (HOURS)	REASON FOR MODIFICATION
B-28 Deciding If Information Is Missing In A Message	4	2	D
B-29 Deciding If Information In A Message Is In Error	4	2	D
B-30 Detecting Problems in Messages	1	2	D
B-31 Finding Information in Illustration Using Text	4	4	
B-32 Identifying Parts of Equipment Using Illustration	4	4	
B-33 Performing a Procedure Using Illustration/Text	2	4	D

D = development of lesson
T = trial of lesson

Comments Regarding Modifications of Time Estimates in Annex B

As explained in Section 1 of this report, B-07 is an enabling objective of B-11 and the behavioral objective of each was substantially altered during the developmental process. These changes also necessitated a revision of time estimates for these lessons.

B-09 reflects a substantial decrease in estimated time. The variety of the types of tables involved (i.e. alphabetic, alpha-numeric, numeric and textual) led the designer to allot 8 hours to this lesson. The instructional specialists determined that, although the tables are quite different, the principles applied to their use is similar. The judgement was then made to reduce the amount of time designated to this lesson to 4 hours. Trials demonstrated this, too, was excessive. The final determination is that 2 hours is a reasonable estimate.

Partitioning each of the skills relating to terms and definitions, integrating information, and reading comprehension into a cluster or group of lessons had an effect on the time allotted to those skills.

The time estimate for B-33 was affected by the developmental modifications of this lesson which were described in Section 1 of this report.

TABLE 10
TIME ESTIMATES FOR FBSEP LESSONS
ANNEX C

FBSEP LESSON	INITIAL ESTIMATE (HOURS)	FINAL ESTIMATE (HOURS)	REASON FOR MODIFICATION
C-01 Tracing Letters and Numbers in a Lettering Chart	1	1	
C-02 Pronouncing Numbers and Letters Using a Phonetic Alphabet Chart	1	1	
C-03 Arranging Single Letters in Alphabetic Order	1	1	
C-04 Arranging Letter-Number-Letter Groups in Alphanumeric Order	1	1	
C-05 } Spelling Commonly Used Military Words		1	
C-06 }		1	
C-07 }		1	
TOTAL:	3	3	
C-08 Printing Text of Message Presented Orally	3	3	
C-09 Filling Out Forms	4	4	
C-10 Reading Aloud Text of Printed Message	4	2	T

D = development of lesson

T = trial of lesson

Comments Regarding Modification of Time Estimates in Annex C

Time estimates for lessons in Annex C remain unusually close to those initially presented in the Design Report.

The one exception is C-10. Trials of this lesson demonstrated a reduction in time is apparently appropriate. The presentation and practice portions of this lesson are group paced but the evaluation is on an individual basis. It is this student-by-student evaluation which makes the amount of time required difficult to predict.

TABLE 11
TIME ESTIMATES FOR FBSEP LESSONS
ANNEX D

FBSEP LESSON	INITIAL ESTIMATE (HOURS)	FINAL ESTIMATE (HOURS)	REASON FOR MODIFICATION
D-01 Changing Civilian Time to Military Time	1	1	
D-02 Adding Hours to Military Time	1	1	
D-03 Subtracting Hours From Military Time	1	1	
D-04 Adding or Subtracting Hours Moving Across Days	2	1	
D-05 Adding Two Numbers Which Contain Decimals	1	1	
D-06 Subtracting Two Numbers Which Contain Decimals	1	1	
D-07 Finding 10% of a Number	1	1	
D-08 Finding Numbers Which Are 10% Above and 10% Below a Given Number	2	1	
D-09 Multiplying a 5-digit Number by a 1-digit Number	2	2	
D-10 Subtracting 5 or 6-digit Numbers	2	1	D
D-11 Dividing 7-digit Numbers by 6-digit Numbers	—	2	D
D-12 Rounding off a Number Containing 2 Decimal Places to the Nearest 10th	2	1	D
D-13 Dividing 468 by a Number Containing a Decimal	2	1	D
D-14 Dividing 468 by a Number Containing a Decimal and Round off the Answer to the Nearest 10th	2	2	D

D = development of lesson
T = trial of lesson

Comments Regarding Modification of Time Estimates in Annex D

Of particular interest is D-11 and D-13. The "new" lesson D-11 deals with material which, according to original plans, would have needed to be presented as part of D-13. (See Section 1 of this report for more details.) The modification on time estimates for these lessons are a direct result of the changes made to the structures of these lessons.

SECTION 6: MEDIA PRESCRIBED FOR EACH FBSEP LESSON

The media section model used to make the initial decisions regarding the media mix for the FBSEP instructional course is described in the Design Report. Modification of these initial decisions was a natural outcome of the developmental process. Consideration of the learning guidelines and the development of activities based on these guidelines necessarily affect the final media selection. In addition, other constraints are also important to final selection, namely the interfacing of the FBSEP course with the existing AIT program and the cost and time restraints on courseware development. Differences between the original suggestions for media and the final selections are nonetheless minimal.

FBSEP lessons fall into two major categories; either they are self paced or they are group paced and led by a learning supervisor. Learning Supervisor Guides are provided for all lessons. There is a single Learning Supervisor Guide for the self paced lessons; each group paced lesson has its own Learning Supervisor Guide. (See the Instructor Training Course for details.) Each lesson is accompanied by a printed Student Guide. For most self paced lessons, the printed Student Guide is the mode of delivery; for those self paced lessons that require audio material, audio tapes are supplied. The primary media selected

for group paced, instructor-led lessons are overhead transparencies.

Two lessons, originally slated for self paced printed material, are now group paced lessons. They are B-32, Identifying Parts of Equipment Using Illustration, and B-33, Performing a Procedure Using Illustration/Text. These lessons consist of performance-oriented, hands-on activities and are, therefore, best suited for instructor-led demonstrations and immediate, individual feedback regarding a student's performance. In B-32, overhead transparencies are used to focus, in an efficient and effective manner, the students' attention on the illustration. In B-33, only a few overhead transparencies are used and their function is to merely bring all students together for a common jumping-off point for the main focus of the lesson — the lab or hands-on experience.

Four lessons, initially identified as requiring an instructor and transparencies, are equally viable as printed materials presented in a self paced mode. The four lessons are A-08, B-07, B-28 and B-29. Since the choice of presentation for each of these lessons is marginal, the decision is based on ease of administration and consistency of style with related lessons. Specifically, A-08, Identifying Relationships Between Prowords and Prosigns, now has the same mode of delivery

as its enabling objectives, A-06, Memorizing Meanings of Pro- words, and A-07, Memorizing Meanings of Prosigns; B-07, Finding Information in Text, is now consistent in format with B-11, Finding Information in Manuals; and lastly B-28, Deciding If Information Is Missing In a Message, and B-29, Deciding If Information In a Message Is In Error, is consistent in style with their terminal objective, B-30, Detecting Problems in Messages.

The original media suggested for lessons C-01 and C-09 were charts used by an instructor. Overhead transparencies prove more versatile. With C-01, Tracing Letters and Numbers in a Lettering Chart, transparencies allow the instructor to use a grease pencil and physically demonstrate the tracing of letters and numbers using the strokes described in the chart. Tracing paper is also supplied to the student to enable him/her to practice the skill. With C-09, Filling Out Forms, transparencies easily allow for demonstrating numerous examples of blank, as well as completed, forms.

The Design Report proposed to employ the Beseler Cue/See version of slide/tape for five lessons. The final development does not utilize slide/tape at all. For two of these five lessons, Pronouncing Letters and Numbers in a Phonetic Alphabet Chart (C-02) and Spelling Commonly Used Military Words (now three lessons, C-05 through C-07), audio presentation

is mandatory but visual reception is as effective on a printed page as on a screen. Audio tape, therefore, is more feasible than slide/tape. For another of these lessons, C-02, Pronouncing Letters and Numbers in a Phonetic Alphabet Chart, slide/tape does not allow for critiquing the student's pronunciation during practice exercises. To this end, the lesson is now instructor-led. To allow for easy visibility, a classroom-size demonstration model of the phonetic alphabet chart is supplied. The last two of these five lessons substitutes overhead transparencies for slide/tape. The intent in both cases is to encourage student participation and to allow for immediate feedback and individual guidance. The two lessons are C-10, Reading Aloud Text of Printed Message, and B-15, Integrating Information to Form Concepts: Net, CEOI. B-15 is one of a cluster of lessons on integrating information and is the only one of the cluster which is group paced and instructor-led. B-15 establishes the patterns used in the remaining self paced lessons of the cluster.

A similar, but not identical, situation applies to the "reading comprehension" cluster. Overhead transparencies were the original media proposed for the teaching of this skill, slated in the Design Report as one lesson. Although the skill has been divided into six lessons, B-22, the first in the series, remains an instructor-led lesson utilizing overhead transparencies. The remainder are self paced practice exercises which

are tested in the last lesson of the series, B-27.

One lesson in the FBSEP instructional course is unique in that it has two different modes of delivery. A-01, Understanding FBSEP, is designed to be both group paced utilizing overhead transparencies and to be self paced, depending on the student's need. For students who are scheduled for A-02 through A-05, dealing with the instructional system of the AIT course, A-01 is supplied in the same format as these lessons, i.e. group paced with overhead transparencies. For students not requiring this group of lessons, A-01 can be taken at any time as a self paced printed introduction to FBSEP instruction.

More details regarding the teaching and learning strategies for these and any other FBSEP lessons can be found in the Course Management Plan. Below is a listing of lessons according to the media prescribed for the lesson.

Self Paced Printed Lessons: (49 lessons)

- A-01 Understanding FBSEP
- A-06 Memorizing Meanings of Prowords
- A-07 Memorizing Meanings of Prosigns
- A-08 Identifying Relationships Between Prowords and Prosigns

- B-01 Identifying the Organizing System of a Soldier's Manual
- B-02 Using the Organizing System in the Soldier's Manual
- B-03 Identifying the Organizing System of a Technical Manual
- B-04 Using the Organizing System in a Technical Manual
- B-05 Finding Information in a Table of Contents
- B-06 Finding Information in an Index
- B-07 Finding Information in Text
- B-08 Finding Information in an Illustration
- B-09 Finding Information in Tables
- B-10 Finding Information in Diagrams
- B-11 Finding Information in Manuals
- B-12 Matching Terms with Their Definitions
- B-13 Matching Terms with Their Definitions
- B-14 Matching Terms with Their Definitions
- B-15 Matching Terms with Their Definitions
- B-16 Matching Terms with Their Definitions
- B-18 Integrating Information to Form Concepts: Message,
Radio Sets, Teletypewriter Sets
- B-19 Integrating Information to Form Concepts: Antenna,
Generator
- B-20 Integrating Information to Form Concepts: Security,
ECM/ECCM
- B-21 Integrating Information to Form Concepts: Operator
and Maintenance MOS, Manuals
- B-23 Comprehend Reading Passages on Topics Related to Radio
Teletype Communication
- B-24 Comprehend Reading Passages on Topics Related to Radio
Teletype Communication

- B-25 Comprehend Reading Passages on Topics Related to Radio Teletype Communication
- B-26 Comprehend Reading Passages on Topics Related to Radio Teletype Communication
- B-27 Comprehend Reading Passages on Topics Related to Radio Teletype Communication
- B-28 Deciding If Information Is Missing In A Message
- B-29 Deciding If Information In A Message Is In Error
- B-30 Detecting Problems In Messages
- B-31 Finding Information in Illustration Using Text
- C-03 Arranging Single Letters in Alphabetic Order
- C-04 Arranging Letter-Number-Letter Groups in Alphanumeric Order
- D-01 Changing Civilian Time to Military Time
- D-02 Adding Hours to Military Time
- D-03 Subtracting Hours From Military Time
- D-04 Adding or Subtracting Hours Moving Across Days
- D-05 Adding Two Numbers Which Contain Decimals
- D-06 Subtracting Two Numbers Which Contain Decimals
- D-07 Finding 10% of a Number
- D-08 Finding Numbers Which are 10% Above and 10% Below a Given Number
- D-09 Multiplying a 5-digit Number by a 1-digit Number
- D-10 Subtracting 5 or 6-digit Numbers
- D-11 Dividing 7-digit Numbers by 6-digit Numbers
- D-12 Rounding off a Number Containing 2 Decimal Places to Nearest 10th
- D-13 Dividing 468 by a Number Containing a Decimal

D-14 Dividing 468 by a Number Containing a Decimal and Round-off the Answer to Nearest 10th

Self Paced with Audio Tape: (4 lessons)

C-05 Spelling Commonly Used Military Words

C-06 Spelling Commonly Used Military Words

C-07 Spelling Commonly Used Military Words

C-08 Printing Text of Message Presented Orally

Group Paced with Overhead Transparencies: (13 lessons)

A-01 Understanding FBSEP

A-02 Identifying Parts, Functions, and Sequence in Lesson Study Guide

A-03 Identifying Training Aids and Devices Used in the Course

A-04 Identifying Parts, Functions and Sequence Across Lessons

A-05 Understanding the Instructional System

A-09 Comparing and Contrasting Radio and Teletype Procedures

B-17 Integrating Information Related to Concepts: Net and CEOI

B-22 Comprehending Reading Passages on Topics Related to Radio Teletype Communication

B-32 Identifying Parts of Equipment Using Illustration

B-33 Performing a Procedure Using Illustration/Text

C-01 Tracing Letters and Numbers in a Chart

C-09 Filling Out Forms

C-10 Reading Aloud Text of Printed Message

Group Paced with Chart: (1 lesson)

C-02 Pronouncing Numbers and Letters Using Phonetic Alphabet Chart

Some lessons require additional materials to be supplied to, and used by, the students. These supplies include manuals, tracing paper, and radio equipment. A list of these materials and the lesson for which they are required is given in Table 13 of this report.

SECTION 7: STANDARD REQUIRED FOR EACH FBSEP LESSON

In the Design Report, most standards were set at 100%. A few more demanding skills were set slightly lower at 90%. i.e. lessons on prowords, prosigns, and the relationship between the two; matching terms with their definitions; and printing messages presented orally. One skill, integrating information to form concepts, was set at 80%. In this initial phase of the process, standards were necessarily tentative; a number of subsequent factors needed to be taken into account before definitive standards could be determined.

First, the results of the pilot run of the Diagnostic Test were analyzed. Secondly, the lesson and testing specifications were drafted at which point educational specialists determined the recommended standards for each lesson. The developmental trials of the lessons were conducted and, once again, these results analyzed and educational specialists consulted regarding the standards.

A general guiding principle was applied; standards should be low enough to be attainable yet high enough to be an interesting challenge to the students. The range of standards was set at 80 to 100% accuracy.

Since 100% accuracy does not allow for any error, even that due to fatigue or carelessness, and since none of these basic skills involve life threatening situations, 100% accuracy is used as the standard on only the two most elementary of the basic skills, i.e. C-01 Tracing Letters and Numbers in a Lettering Chart and C-03 Arranging Single Letters in Alphabetical Order. All other standards range between 80 and 94%. Slight variations in standards on what may appear to be comparable basic skills may be due to the number of items used to evaluate the skill.

The standard for each lesson is expressed in two formats; a ratio comparing the number of correct items with the total number of test items and its equivalent percentage. For example, A-02 lists as its standard 15/18 (83.3%). This implies a student must score 15 out of 18 possible points on the test for lesson A-02 to successfully complete that lesson. This ratio, 15/18, is equivalent to getting 83.3% of the test correct.

The standard quoted is the standard for the lesson; this means the standard for a particular lesson is the same on both the Lesson and Remediation Tests. Each Answer Key and/or Learning Supervisor Guide contains explicit directions for scoring these tests.

Table 12 contains a summary of the standards for each FBSEP lesson.

TABLE 12
STANDARDS FOR FBSEP LESSONS
ANNEX A

FBSEP LESSON	STANDARD
A-01 Understanding FBSEP	no test
A-02 Identifying Parts, Functions, and Sequence in Lesson Study Guide	15/18 (83.3%)
A-03 Identifying Training Aids and Devices Used in the Course	5/6 (83.3%)
A-04 Identifying Parts, Functions and Sequence Across Lessons	8/10 (80%)
A-05 Understanding the Instructional System.	27/31 (87.0%)
A-06 Memorizing Meanings of Prowords	26/30 (86.6%)
A-07 Memorizing Meanings of Prosings	25/27 (92.5%)
A-08 Identifying Relationships Between Prowords and Prosings	22/24 (91.6%)
A-09 Comparing and Contrasting Radio and Teletype Procedures	13/16 (81.2%)
Table Continued	

TABLE 12 (Cont.)
STANDARDS FOR FBSEP LESSONS
ANNEX B

FBSEP LESSON	STANDARD
B-01 Identifying the Organizing System of a Soldier's Manual	8/10 (80%)
B-02 Using the Organizing System in the Soldier's Manual	10/12 (83.3%)
B-03 Identifying the Organizing System of a Technical Manual	11/12 (91.6%)
B-04 Using the Organizing System in a Technical Manual	7/8 (87.5%)
B-05 Finding Information in a Table of Contents	5/6 (83.3%)
B-06 Finding Information in an Index	5/6 (83.3%)
B-07 Finding Information in Text	5/6 (83.3%)
B-08 Finding Information in an Illustration	4/5 (80%)
B-09 Finding Information in Tables	8/9 (88.8%)
B-10 Finding Information in Diagrams	8/9 (88.8%)
B-11 Finding Information in Manuals	9/10 (90%)
Table Continued	

TABLE 12 (Cont.)
STANDARDS FOR FBSEP LESSONS
ANNEX B

FBSEP LESSON	STANDARD
B-12 } B-13 } Matching Terms with Their Definitions B-14 } B-15 } B-16 } TOTAL: Integrating Information to Form Concepts-- B-17 Net, CEOI B-18 Message, Radio Sets, Teletypewriter Sets B-19 Antenna, Generator B-20 Security, ECN/ECCM B-21 Operator and Maintenance MOS, Manuals TOTAL: B-22 } B-23 } Comprehending Reading Passages on Topics B-24 } Related to Radio Teletype Communication B-25 } B-26 } B-27 } B-28 Deciding If Information Is Missing In A Message B-29 Deciding If Information In A Message Is In Error B-30 Detecting Problems In Messages Table Continued	18/20 (90%) 18/20 (90%) 18/20 (90%) 18/20 (90%) 19/21 (90.4%) 91/101 (90.0%) 36/42 (85.7%) 46/58 (79.3%) 27/34 (79.4%) 28/35 (80.0%) 31/39 (79.4%) 168/208 (80.7%) 13/15 13/15 (86.6%) 5/6 (83.3%) 5/6 (83.3%) 4/5 (80%)

TABLE 12 (Cont.)
STANDARDS FOR FBSEP LESSONS
ANNEX B

FBSEP LESSON	STANDARD
B-31 Finding Information in Illustration Using Text	4/5 (80%)
B-32 Identifying Parts of Equipment Using Illustration	4/5 (80%)
B-33 Performing a Procedure Using Illustration/Text	11/13 (84.6%)
Table Continued	

TABLE 12 (Cont.)
STANDARDS FOR FBSEP LESSONS
ANNEX C

FBSEP LESSON	STANDARD
C-01 Tracing Letters and Numbers in a Lettering Chart	4/4 (100%)
C-02 Pronouncing Numbers and Letters Using Phonetic Alphabet Chart	34/36 (94.4%)
C-03 Arranging Single Letters in Alphabetic Order	3/3 (100%)
C-04 Arranging Letter-Number-Letter Groups in Alphanumeric Order	4/5 (80%)
C-05 } Spelling Commonly Used Military Words	26/30 (86.6%)
C-06 } TOTAL:	26/30 (86.6%)
C-07 }	26/30 (86.6%)
	78/90 (86.6%)
C-08 Printing Text of Message Presented Orally	80% on each of 7 messages
C-09 Filling Out Forms	18/20 (90%)
C-10 Reading Aloud Text of Printed Message	80% on each of 3 messages
Table Continued	

TABLE 12 (Cont.)
STANDARDS FOR FBSEP LESSONS
ANNEX D

FBSEP LESSON	STANDARD
D-01 Changing Civilian Time to Military Time	5/6 (83.3%)
D-02 Adding Hours to Military Time	4/5 (80%)
D-03 Subtracting Hours From Military Time	4/5 (80%)
D-04 Adding or Subtracting Hours Moving Across Days	8/10 (80%)
D-05 Adding Two Numbers Which Contain Decimals	4/5 (80%)
D-06 Subtracting Two Numbers Which Contain Decimals	4/5 (80%)
D-07 Finding 10% of a Number	8/10 (80%)
D-08 Finding Numbers Which Are 10% Above and 10% Below a Given Number	8/10 (80%)
D-09 Multiplying a 5-digit Number by a 1-digit Number	4/5 (80%)
D-10 Subtracting 5 or 6-digit Numbers	4/5 (80%)
D-11 Dividing 7-digit Numbers by 6-digit Numbers	4/5 (80%)
D-12 Rounding off a Number Containing 2 Decimal Places to Nearest 10th	5/6 (83.3%)

Table Continued

TABLE 12 (Cont.)
STANDARDS FOR FBSEP LESSONS
ANNEX D

FBSEP LESSON	STANDARD
<p>D-13 Dividing 468 by a Number Containing a Decimal</p> <p>D-14 Dividing 468 by a Number Containing a Decimal and Round-off the Answer to Nearest 10th</p>	<p>4/5 (80%)</p> <p>4/5 (80%)</p>

The following table summarizes the final outcomes detailed in this report. The prerequisites, media, additional materials, estimated time, and standard required for each lesson are listed in Table 13.

TABLE 13
SUMMARY OF DATA REGARDING FBSEP LESSONS
ANNEX A

FBSEP LESSON	PREREQUISITES	MEDIUM	MATERIALS	HOURS	STANDARDS
A-01 Understanding FBSEP		GP & OT or SP		1	No Test
A-02 Identifying Parts, Functions and Sequence in Lesson Study Guide		GP & OT		1	15/18 (83.3%)
A-03 Identifying Training Aids and Devices Used in Course	A-02	GP & OT		1	5/6 (83.3%)
A-04 Identifying Parts, Functions and Sequence Across Lessons	A-02, A-03	GP & OT		2	8/10 (80%)
A-05 Understanding the Instructional System	A-02, A-03, A-04	GP & OT		1	27/31 (87%)
A-06 Memorizing Meanings of Prowords		SP		3	26/30 (86.6%)
A-07 Memorizing Meanings of Prosigns		SP		4	25/27 (92.5%)
A-08 Identifying Relationships Between Prowords and Prosigns		SP		3	22/24 (91.6%)
A-09 Comparing and Contrasting Radio and Teletype Procedures		GP & OT		6	13/16 (81.2%)

GP = group paced
SP = self paced

AT = audio tape
OT = overhead transparencies

TABLE 13
SUMMARY OF DATA REGARDING FBSEP LESSONS
ANNEX B

FBSEP LESSON	PREREQUISITES	MEDIUM	MATERIALS	HOURS	STANDARDS
B-01 Identifying the Organizing System of a Soldier's Manual		SP		2	8/10 (80%)
B-02 Using the Organizing System in the Soldier's Manual		SP	FM 11-05C1/2	1	10/12 (83.3%)
B-03 Identifying the Organizing System of a Technical Manual		SP		2	11/12 (91.6%)
B-04 Using the Organizing System in a Technical Manual		SP	TM 11-5820-520-12	2	7/8 (87.5%)
B-05 Finding Information in a Table of Contents		SP		1	5/6 (83.3%)
B-06 Finding Information in an Index		SP		2	5/6 (83.3%)
B-07 Finding information in Text		SP	FM 11-05C1/2; TM 11-5805-262-12	3	5/6 (83.3%)
B-08 Finding Information in an Illustration		SP		2	4/5 (80%)
B-09 Finding Information in Tables		SP		2	8/9 (88.8%)
B-10 Finding Information in Diagrams		SP		2	8/9 (88.8%)

GP = group paced
SP = self paced

AT = audio tape
OT = overhead transparencies

TABLE 13
SUMMARY OF DATA REGARDING FBSEP LESSONS
ANNEX B (Cont.)

FBSEP LESSON	PREREQUISITES	MEDIUM	MATERIALS	HOURS	STANDARDS
B-11 Finding Information in Manuals		SP	TM 11-5805-262-12	3	9/10 (90%)
B-12 Matching Terms with Their Definitions		SP		2	18/20 (90%)
B-13 Matching Terms with Their Definitions	B-12	SP		2	18/20 (90%)
B-14 Matching Terms with Their Definitions	B-12, B-13	SP		2	18/20 (90%)
B-15 Matching Terms with Their Definitions	B-12, B-13, B-14	SP		2	18/20 (90%)
B-16 Matching Terms with Their Definitions	B-12, B-13, B-14, B-15	SP		2	19/21 (90.4%)
B-17 Integrating Information to Form Concepts: Net, CEOI		GP & OT		3	36/42 (85.7%)
B-18 Integrating Information to Form Concepts: Message, Radio Sets, Teletypewriter Sets	B-17	SP		4	46/58 (79.3%)
B-19 Integrating Information to Form Concepts: Antenna, Generator	B-17	SP		2	27/34 (79.4%)

GP = group paced
SP = self paced

AT = audio tape
OT = overhead transparencies

TABLE 13
SUMMARY OF DATA REGARDING FBSEP LESSONS
ANNEX B (Cont.)

FBSEP LESSON	PREREQUISITES	MEDIUM	MATERIALS	HOURS	STANDARDS
B-20 Integrating Information to Form Concepts: Security, ECM/ECCM	B-17	SP		2	28/35 (80%)
B-21 Integrating Information to Form Concepts: Operator and Maintenance NOS, Manuals	B-17	SP		2	31/39 (79.4%)
B-22 Comprehending Reading Passages on Topics Related to Radio Teletype Communication	B-17	GP & OT		2	See B-27
B-23 Comprehending Reading Passages on Topics Related to Radio Teletype Communication	B-18, B-22	SP		2	See B-27
B-24 Comprehending Reading Passages on Topics Related to Radio Teletype Communication	B-19, B-22	SP		2	See B-27
B-25 Comprehending Reading Passages on Topics Related to Radio Teletype Communication	B-20, B-22	SP		2	See B-27

GP = group paced
SP = self paced

AT = audio tape
OT = overhead transparencies

TABLE 13
SUMMARY OF DATA REGARDING FBSEP LESSONS
ANNEX B (Cont.)

FBSEP LESSON	PREREQUISITES	MEDIUM	MATERIALS	HOURS	STANDARDS
B-26 Comprehending Reading Passages on Topics Related to Radio Teletype Communication	B-21, B-22	SP		2	See B-27
B-27 Comprehending Reading Passages on Topics Related to Radio Teletype Communication	B-22 - B-26	SP		1	13/15 (86.6%)
B-28 Deciding If Information Is Missing In A Message		SP		2	5/6 (83.3%)
B-29 Deciding If Information In A Message Is In Error		SP		2	5/6 (83.3%)
B-30 Detecting Problems In Messages		SP		2	4/5 (80%)
B-31 Finding Information in Illustration Using Text		SP		4	4/5 (80%)
B-32 Identifying Parts of Equipment Using Illustration		GP & OT	* AN/PRC-77 AN/GRC-106 inc. AM-3349/GRC RT-834/GRC	4	4/5 (80%)
B-33 Performing a Procedure Using Illustration/Text		GP & OT	AN/VRC-46 i.e. RT-524/VRC	4	11/13 (84.6%)

GP = group paced
SP = self paced

AT = audio tape
OT = overhead transparencies

* applies to B-32 and B-33

TABLE 13
SUMMARY OF DATA REGARDING FBSEP LESSONS
ANNEX C

FBSEP LESSON	PREREQUISITES	MEDIUM	MATERIALS	HOURS	STANDARDS
C-01 Tracing Letters and Numbers in a Lettering Chart		GP & OT	Tracing Paper (Grease Pencil for Instructor)	1	4/4 (100%)
C-02 Pronouncing Letters and Numbers in a Phonetic Alphabet Chart		GP & Chart		1	34/36 (94.4%)
C-03 Arranging Single Letters in Alphabetical Order		SP		1	3/3 (100%)
C-04 Arranging Letter-Number-Letter Groups in Alphanumeric Order		SP		1	4/5 (80%)
C-05 Spelling Commonly Used Military Words		SP & AT		1	26/30 (86.6%)
C-06 Spelling Commonly Used Military Words	C-05	SP & AT		1	26/30 (86.6%)
C-07 Spelling Commonly Used Military Words	C-05, C-06	SP & AT		1	26/30 (86.6%)
C-08 Printing Text of Message Presented Orally		SP & AT		3	80% on each of 7 messages
C-09 Filling Out Forms		GP & OT		4	18/20 (90%)
C-10 Reading Aloud Text of Printed Message		GP & OT		2	80% on each of 3 messages

GP = group paced
SP = self paced

AT = audio tape
OT = overhead transparencies

TABLE 13
SUMMARY OF DATA REGARDING FBSEP LESSONS
ANNEX D

FBSEP LESSON	PREREQUISITES	MEDIUM	MATERIALS	HOURS	STANDARDS
D-01 Changing Civilian Time to Military Time		SP		1	5/6 (83.3%)
D-02 Adding Hours to Military Time		SP		1	4/5 (80%)
D-03 Subtracting Hours from Military Time		SP		1	4/5 (80%)
D-04 Adding or Subtracting Hours Moving Across Days		SP		1	8/10 (80%)
D-05 Adding Two Numbers Which Contain Decimals		SP		1	4/5 (80%)
D-06 Subtracting Two Numbers Which Contain Decimals		SP		1	4/5 (80%)
D-07 Finding 10% of a Number		SP		1	8/10 (80%)
D-08 Finding Numbers Which are 10% Above and Below a Given Number		SP		1	8/10 (80%)
D-09 Multiplying a 5-digit Number by a 1-digit Number		SP		2	4/5 (80%)
D-10 Subtracting 5 or 6-digit Numbers		SP		1	4/5 (80%)
D-11 Dividing 7-digit Numbers by 6-digit Numbers		SP		2	4/5 (80%)

GP = group paced
SP = self paced

AT = audio tape
OT = overhead transparencies

TABLE 13
SUMMARY OF DATA REGARDING FBSEP LESSONS
ANNEX D (Cont.)

FBSEP LESSON	PREREQUISITES	MEDIUM	MATERIALS	HOURS	STANDARDS
D-12 Rounding off a Number Containing Two Decimal Places to the Nearest 10th		SP		1	5/6 (83.3%)
D-13 Dividing 468 by a Number Containing a Decimal		SP		1	4/5 (80%)
D-14 Dividing 468 by a Number Containing a Decimal and Rounding-off the Answer to the Nearest 10th		SP		2	4/5 (80%)

GP = group paced
SP = self paced

AT = audio tape
OT = overhead transparencies

APPENDIX A

DEVELOPMENT

REVISION

DESIGN REPORT MODIFICATIONS - FBSEP

Person Submitting Change: _____

Date: _____

Description of Change: _____

Reason for Change: _____

Approved: _____
Signature Date

Not Approved: _____
Signature Date

FBSEP Staff Notified (Initial and Date)

E. Majer _____

M. Hillman _____

M. Showel _____

B. Ostiguy _____

J. Randel _____

F. Zimmerman _____

J. Ellingson _____

REVISION INDICATORS

LESSON NUMBER _____ WRITER _____

NUMBER OF STUDENTS TESTED: _____ DATE _____

1. Is there any information about how long it took students to complete the lesson? If so, indicate the average time required below and whether or not it is different than the time indicated on the lesson cover.

2. Does test item analysis indicate that any test items should be revised? If so, list the number of each item below and indicate if it is a Lesson Test item or a Remediation Test item.

3. List below any instructor comments that indicate that revision is necessary. Do not include any comments concerning typos that need correction; make those on your copy of the lesson and check them off and initial them on the Instructor Questionnaire (or individual comments that Wade sometimes makes).

4. List below any student comments that indicate that revision is necessary.

5. List below any additional revision recommendations.

REVISIONS SUMMARY SHEET

LESSON NUMBER _____

WRITER _____

DATE _____

Check if applicable:

_____ Objective revised

_____ Hierarchy chart revised

_____ Test standards revised

_____ Generality revised

_____ Time required revised

_____ Art revised

_____ Prerequisites revised

_____ Materials required revised

_____ Lesson text revised (This does not include typos, spelling,
punctuation.)

Summarize below the revisions that you have made.

APPENDIX B

Instructor Questionnaire for Instructional Evaluation

Lesson _____

Name _____ Date _____

Please answer these questions about the identified lesson.
Add any additional comments that you wish.

1. Was the lesson interesting?

_____ yes
_____ somewhat
_____ no

2. The length of the lesson was:

_____ too long
_____ about right for the material
_____ too short

3. The lesson was:

_____ too easy
_____ about right in difficulty level
_____ too difficult

4. Did you understand the purpose of the lesson?

_____ yes _____ no

5. Were there any parts of the lesson that might present problems for the students?

_____ yes _____ no

If yes, explain _____

6. Would you add anything to the lesson? _____

Instructor Questionnaire for
Instructional Evaluation
(Cont'd)

7. The number of practice exercises was:
_____ too many
_____ about right
_____ not enough
8. Was the Lesson Test fair? _____

9. Did you find the remedial material helpful?

10. Was the Remediation Test fair?
_____ yes _____ no
If not, explain. _____

11. Would you recommend any changes in the lesson?

12. Did you like the format of the lesson?
_____ yes _____ no
Comment? _____

13. Are there any additional comments you would like to make
about the lesson? _____

AD-A130 235

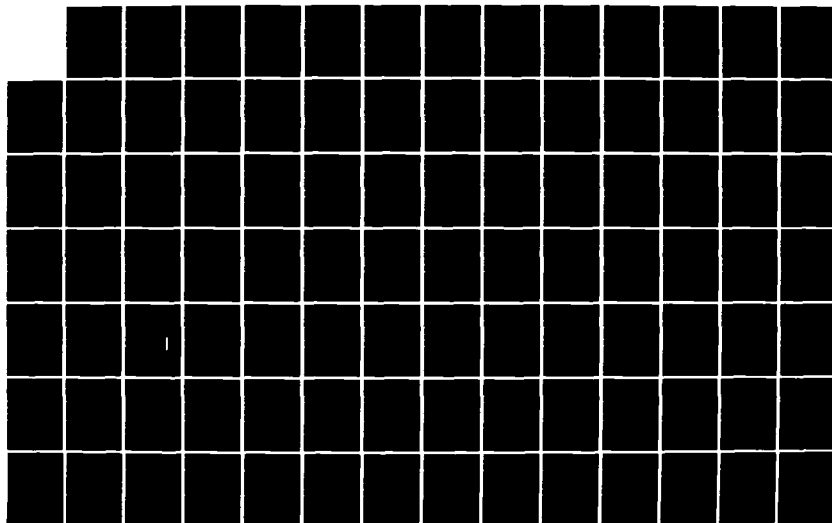
FBSEP (FUNCTIONAL BASIC SKILLS EDUCATION PROGRAM)
DEVELOPMENT REPORT 05C10(U) PERSPECTIVE INSTRUCTIONAL
COMMUNICATIONS INC SAN DIEGO CA 11 JUN 82
DABT60-81-C-0027

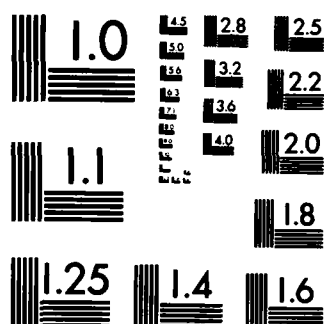
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UNCLASSIFIED

F/G 5/1

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

Instructor Questionnaire (Part II)

Read the Instructor Guide for this lesson and make any comments you wish directly on it. Then, answer the following questions about the Instructor Guide.

1. The amount of material in the Instructor Guide was:
☐ too much
☐ about right
☐ not enough
2. The Instructor Guide is:
☐ too simple
☐ about right
☐ too difficult
3. Did you have problems with any particular part of the Instructor Guide? _____
If so, explain _____

4. What would you like to see in the Instructor Guide that was not there? _____

5. Would you recommend any changes in the Instructor Guide?

6. Did you like the format of the Instructor Guide?
☐ yes ☐ no
Comment: _____
7. Are there any additional comments you would like to make about the Instructor Guide? _____

Student Questionnaire for Lesson Evaluation

Lesson _____

Name _____ SSN _____

Date _____

Please answer these questions about the lesson you have just taken. Add any additional comments that you wish.

1. Was the lesson interesting?

_____ yes
_____ somewhat
_____ no

2. The length of the lesson was:

_____ too long
_____ about right for the material
_____ too short

3. I found the lesson:

_____ too easy
_____ about right
_____ too difficult

4. Did you understand the purpose of the lesson?

_____ yes _____ no

5. Did you have problems with any particular parts of the lesson?

_____ yes _____ no

If so, explain _____

6. Would you add anything to the lesson? _____

Student Questionnaire (Cont'd)

7. How would you change the lesson if you could?

8. The number of practice exercises was:

☐ too many
☐ about right
☐ not enough

9. Was the Lesson Test fair? ☐

If not, explain. ☐

10. Did you use the Remediation Exercise?

☐ yes ☐ no

If yes, did you find that it helped you to better understand the lesson? ☐

11. Did you take the Remediation Test?

☐ yes ☐ no

If yes, was the Remediation Test fair? ☐

12. Are there any other comments you would like to make about the lesson? ☐

APPENDIX C

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

A-01 Understanding FBSEP

PREREQUISITE(s): None

HOUR(s): 1

TYPE: Self paced/Group paced with Overhead Transparencies

OBJECTIVE:

The student will understand the purpose and scope of FBSEP and its relationship to the 05C AIT course.

STANDARD

There is no test.

LESSON SPECIFICATION

A-01

GENERALITY

In order to understand FBSEP, the student will find the answers to these questions:

1. What is the meaning of FBSEP?
2. What is the purpose of FBSEP?
3. How will students be selected for FBSEP?
4. What skills will be taught?
5. How will the lessons be taught?

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMEDIATION EX.	REMEDIATION TEST
	10			

PAGE 2 OF 3

A-01

LESSON SPECIFICATION

SAMPLE TEST ITEM

No test

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

A-02 Identifying Parts, Functions and Sequence in Lesson Study Guide

PREREQUISITE(s): None

HOURL(s): 1

TYPE: Group paced with Overhead Transparencies

OBJECTIVE:

The student will be able to indicate what each part of the Lesson Study Guide is designed to do and indicate the order in which these parts are presented.

STANDARD

The student must get 15 out of 18 correct to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

Put the following parts of a Lesson Study Guide in the correct order by writing 1 by the part which comes first, 2 by the part which comes second, 3 by the part which comes third, etc. You must get six numbers correct.

- 6 Learning Supervisor's Prescription
- 4 Learning Events
- 1 Reason for Lesson
- 3 Lesson Understanding Quiz
- 7 Practical Exercise
- 5 Evaluation
- 2 Objective-Condition-Lesson Requirements
- 8 Performance Test

GENERALITY

The main parts of a Lesson Study Guide as described in the Generality of the A-02 Student Guide are as follows:

1. Reason for Lesson tells you why it is important to get the knowledge and skill taught in the lesson.
2. Objective-Conditions-Lesson Requirements These three sections together tell you what you will be able to do after completing the lesson and the equipment and training aids you will use.
3. Lesson Understanding Quiz asks you some questions about the Objectives-Conditions-Lesson Requirements. You score the quiz yourself.
4. Learning Events gives you the meaning of important words and the information you need to perform the task covered in the lesson.
5. Evaluation is a test that the instructor will give you to find out if you have learned the material and are ready to move on to the next part of the lesson. It is scored by the instructor.
6. Learning Supervisor's Prescription is a description of the additional training, if any, that the instructor thinks you need.
7. Practical Exercise is the chance you have to practice the task before going on to the Performance Test at the end of the lesson.
8. Performance Test is given by the instructor at the end of the lesson to see if you have learned and can do what is covered in the lesson. The instructor scores the test.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
	18	18	18	18

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
	18	18	18	18

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

A-03 Identifying Training Aids and Devices Used in the Course

PREREQUISITE(s): A-02

HOUR(s): 1

TYPE: Group paced with Overhead Transparencies

OBJECTIVE:

The student will be able to match the name of each Training aid or device with what it is designed to do.

STANDARD

The student must get 5 out of 6 correct to pass this test.

SAMPLE TEST ITEM

Match the name of each training aid or device on the left with its function on the right. Put the correct letter in front of each training aid or device. One function will not be used.

Training Aid/DeviceFunction

1. B TT-98 Teletypewriter

A. the training device which plays the audio and visual cassettes

B. a teletypewriter that sends messages by means of a keyboard and receives messages as printed copy

GENERALITY

The following training aids and devices are used by students in the course:

1. Beseler Cue/See

This is a device that presents a lesson by means of audio and visual cassettes.

2. TEC Audio Visual Lesson

This type of lesson is presented on an audio cassette and visual cassette. They are played on the Beseler Cue/See device.

3. TEC Printed Lesson

This type of lesson is presented in a printed booklet. It is used for lessons on teletypewriter procedures and some other lessons.

4. TT-76 Reperforator/Transmitter

This is a teletypewriter that sends messages by means of a keyboard or perforated tape and receives messages on printed and perforated tapes.

5. TT-98 Teletypewriter

This is a teletypewriter that sends messages by means of a keyboard and receives messages as printed copy.

6. Lesson Study Guide

This is a printed booklet that contains the information needed for a particular lesson. There is a Lesson Study Guide for every lesson in the course.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
	6	6	6	6

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

A-04 Identifying Parts, Functions and Sequence Across Lessons

PREREQUISITE(s): A-02, A-03

HOUR(s): 2

TYPE: Group paced with Overhead Transparencies

OBJECTIVE:

The student will be able to indicate what each part of the 05C AIT course is designed to do and indicate the order in which these parts are presented.

STANDARD

The student must get 8 out of 10 correct to pass this test.

SAMPLE TEST ITEM

Arrange the following five steps in the correct order by numbering them from 1 to 5. Write the numbers on the line.

- 1 Complete each lesson.
- 2 Pass the Lesson Test.
- 4 Take part in Skill Training.
- 5 Pass the Tac Eval Test.
- 3 Pass the Annex Test.

LESSON SPECIFICATION

A-04

GENERALITY

The major parts of the course, their functions, and the order in which they are done are shown below:

1. The Lesson covers a small unit of instruction.
2. The Annex represents a group of lessons dealing with similar subjects.
3. The Annex Test tests students on the things that they have learned in the lessons in the Annex.
4. Skill Training takes place in the field and allows the student to perform as a radio teletype operator under simulated tactical conditions.
5. Tac Eval (Tactical Evaluation) is the end-of-course test designed to see if the student is qualified to graduate from the course.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
	10	10	10	10

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

A-05 Understanding the Instructional System

PREREQUISITE(s): A-02, A-03, A-04

HOUR(s): 1

TYPE: Group paced with Overhead Transparencies

OBJECTIVE:

The student will be able to answer questions like those asked in lessons A-02, A-03, and A-04.

STANDARD

The student must get 27 out of 31 correct to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

Match the name of each training aid or device on the left with its function on the right. Put the correct letter in front of each training aid or device. One function will not be used.

Training Aid/DeviceFunction

1. A TEC Printed Lesson

A. the booklets which are used for lessons on teletypewriter procedures and some other lessons

B. the booklets which are used for every lesson in the course

LESSON SPECIFICATION

GENERALITY

None

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
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31

31

31

31

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

A-06 Memorizing Meanings of Prowords

PREREQUISITE(s): None

HOUR(s): 3

TYPE: Self paced

OBJECTIVE:

The student will be able to match a set of prowords with their meanings.

STANDARD

The student must get 26 out of 30 correct to pass this test.

SAMPLE TEST ITEM

Match each proword with its correct meaning.

Prowords

1. ALL AFTER B

Meanings

- A. This is the end of my transmission to you and a response is necessary. Go ahead and transmit.
- B. The portion of the message to which I refer is all which comes after_____.

LESSON SPECIFICATION

GENERALITY

To memorize the meanings of proverbs, the student will:

1. Read each proverb and pronounce it.
2. Read the meaning of each proverb.
3. Note words in the meaning which are the same as or similar to the proverb.
4. Cover the proverb, look at the meaning, and try to recall the proverb.
5. Cover the meaning, look at the proverb, and try to recall the meaning.
6. Repeat steps 4 and 5 until he/she makes no errors.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
40	30	30	30	30

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

A-07 Memorizing Meanings of Prosigns

PREREQUISITE(s): None

HOURL(s): 4

TYPE: Self paced

OBJECTIVE:

The student will be able to match a set of prosigns with their meaning.

STANDARD

The student must get 25 out of 27 correct to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

Match each prosign with its meaning.

PROSIGN

1. GRNC a

MEANING

- a. The words or groups in the message were not counted.
- b. The following parts of the message are confirmed.

LESSON SPECIFICATION

GENERALITY

To memorize the meanings of prosigns, the student will:

1. Read each prosign and pronounce it.
2. Read the meaning of each prosign.
3. Note words in the meaning that have the same first letters as the letters used in the prosign.
4. Cover the prosign, look at the meaning, and try to recall the prosign.
5. Cover the meaning, look at the prosign, and try to recall the meaning.
6. Repeat steps 4 and 5 until he/she makes no errors.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
35	27	27	27	27

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

A-08 Identifying Relationships Between Prowords and Prosigns

PREREQUISITE(s): None

HOURL(s): 3

TYPE: Self paced

OBJECTIVE:

The student will be able to match a proword with a prosign which has the same meaning.

STANDARD

The student must get 22 out of 24 correct to pass this test.

SAMPLE TEST ITEM

Match each prosign with the proword that has the same meaning.

Prosigns

1. FM B

Prowords

A. I SAY AGAIN

B. FROM

LESSON SPECIFICATION

A-08

GENERALITY

To memorize the relationship between prowords and prosigns, the student will:

1. Read the proword and matching prosign and pronounce them.
2. Look for initial letters in the proword that are the same as the letters in the prosign.
3. Cover the proword, look at the prosign, and try to recall the proword.
4. Cover the prosign, look at the proword, and try to recall the prosign.
5. Repeat steps 3 and 4 until he/she has no errors.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
35	24	24	24	24

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

A-09 Comparing and Contrasting Radio and Teletype Procedures

PREREQUISITE(s): None

HOURL(s): 6

TYPE: Group paced with Overhead Transparencies

OBJECTIVE:

The student will be able to read a statement which describes a message format or procedure and decide if the statement applies to a radio message, a radio teletype message, both a radio and a radio teletype message, or neither a radio nor a radio teletype message.

STANDARD

The student must get 13 out of 16 correct to pass this test.

SAMPLE TEST ITEM

Below are 16 statements about messages.

If the statement applies to only radio messages, write the letter R.

If the statement applies to only radio teletype messages, write the letter T.

If the statement applies to both radio and radio teletype messages, write the letter B.

If the statement applies to neither, write the letter N.

1. GRNC is used to indicate that code groups have not been counted.

(ANSWER: T)

LESSON SPECIFICATION

GENERALITY

To answer questions about similarities and differences in radio and radio teletype message format and procedures, the student will:

1. Read the statement which describes a format or procedure.
2. Decide if the statement is true of radio messages, radio teletype messages, both radio and radio teletype messages, or neither radio nor radio teletype messages.
3. Circle the correct answer.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
-----------	----------	-------------	------------	-------------

16

16

16

16

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-01 Identifying the Organizing System In a Soldier's Manual

PREREQUISITE(s): None

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to answer multiple-choice questions about the organizing system of a Soldier's Manual.

STANDARD

The student must get 8 out of 10 correct to pass this test.

SAMPLE TEST ITEM

1. In the hyphenated number 2-3, the number 2 is the _____ number.
 - a. figure
 - b. task
 - c. chapter
 - d. appendix

answer: c

LESSON SPECIFICATION

GENERALITY

To answer multiple-choice questions, the student must learn the function of the following elements:

- | | |
|----------------------|-------------------------|
| 1. Chapter | 6. Task |
| 2. Table of Contents | 7. Conditions |
| 3. Figure | 8. Standards |
| 4. Appendix | 9. Performance Measures |
| 5. Skill Level | 10. References |

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
-----------	----------	-------------	------------	-------------

21	12	10	12	10
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PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-02 Using the Organizing System in the Soldier's Manual

PREREQUISITE(s): None

HOURL(s): 1

TYPE: Self paced

OBJECTIVE:

The student will be able to use the organizing system to locate elements in the Soldier's Manual FM 11-05C1/2.

STANDARD

The student must get 10 out of 12 correct to pass this test.

B-02

SAMPLE TEST ITEM

1. What are the number and the title of the figure on page 2-269?

answer: Figure 3. Voltage Output Selector Switch

LESSON SPECIFICATION

B-02

GENERALITY

To use the organizing system to locate elements in the Soldier's Manual, the student should:

1. Decide which specific element needs to be located.
2. Recall facts about the organizing system of the Soldier's Manual.
3. Locate the specific element in the Soldier's Manual.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
	9	12	9	12

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-03 Identifying the Organizing System In a Technical Manual

PREREQUISITE(s): None

HOUR(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to answer multiple-choice questions about the organizing system of a technical manual.

STANDARD

The student must get 11 out of 12 correct to pass this test.

SAMPLE TEST ITEM

1. Table 3-5 refers to _____.
 - a. Table 3, page 5
 - b. page 3, Table 5
 - c. Table 3, Chapter 5
 - d. Chapter 3, Table 5

Answer: c

B-03

GENERALITY

To identify the organizing system of a technical manual, the student must learn the organizing system of the following elements of a technical manual:

1. Chapter
2. Section
3. Page
4. Paragraph
5. Sub-paragraph
6. Sub-sub-paragraph
7. Figure
8. Table
9. Table of Contents
10. Appendix
11. Change page
12. Index
13. Insert

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
24	15	12	15	12

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-04 Using the Organizing System of a Technical Manual

PREREQUISITE(s): None

HOUR(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to use the organizing system to locate elements in a technical manual, TM 11-5820-520-12, Operator's and Organizational Maintenance Manual-Radio Sets AN/GRC-106 and AN/GRC-106A.

STANDARD

The student must get 7 out of 8 correct to pass this test.

SAMPLE TEST ITEM

Use the organizing system to locate elements in the technical manual TM 11-5820-520-12.

1. What is the title of paragraph 4-3?

Answer: Cleaning

LESSON SPECIFICATION

B-04

GENERALITY

To use the organizing system to locate elements in a technical manual, the student should:

1. Decide which specific element needs to be located.
2. Recall facts about the organizing system of a technical manual.
3. Locate specific elements in a technical manual.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
	12	8	12	8

PAGE 1 OF 3

B-05

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-05 Finding Information in a Table of Contents

PREREQUISITE(s): None

HOUR(s): 1

TYPE: Self paced

OBJECTIVE:

The student will be able to refer to a Table of Contents in a book or manual to find which paragraph, page, or item number has the information that is needed.

STANDARD

The student must get 5 out of 6 correct to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

Use the Table of Contents on page 2 to answer questions 1 through 4.

1. On what page will you find a Maintenance Allocation Chart for Radio Set AN/VRC-46?

Answer: B-7

(Table of Contents attached)

GENERALITY

To find information in a Table of Contents, the student should:

1. Find the key words in the information he/she is looking for.
2. Find these key words in the Table of Contents.
3. Find the paragraph, page or item number to the right of the listing.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
	6	6	6	6

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-06 Finding Information in an Index

PREREQUISITE(s): None

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to use the index in a book or technical manual to find the information he/she needs.

STANDARD

The student must get 5 out of 6 correct to pass this test.

SAMPLE TEST ITEM

Use the Index in Table 1 to answer these questions.

1. On what page will you find a description of an M/29U Microphone?

Answer: Page 1-14

(Table 1 attached)

LESSON SPECIFICATION

B-06

GENERALITY

To find information in an index the student will:

1. Find the key words in the information he/she is looking for.
2. Find these key words in the index.
3. Find the paragraph or page number to the right of the listing.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
	6	6	6	6

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-07 Finding Information in Text

PREREQUISITE(s): None

HOURL(s): 3

TYPE: Self paced

OBJECTIVE:

The student will be able to answer questions regarding information contained in the text of manuals, given Soldier's Manual FM 11-05C1/2 and Switchboards, Telephone, Manual SB-22/PT and SB-22A/PT TM 11-5805-262-12.

STANDARD

The student must get 5 out of 6 correct to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

Use the Soldier's Manual to answer the following questions.

1. What are the standards for performing Task 551-721-1021?

Answer: You must be able to successfully avoid detection of position from the air.

LESSON SPECIFICATION

GENERALITY

To answer questions regarding information contained in manuals, the student should:

1. Read the question and look for key words.
2. Locate the information using the organizing system, the table of contents, and/or the index of the manual.
3. Read the information.
4. Answer the question.

ITEM POOL

STUDY EX. PRACTICE LESSON TEST REMED. EX. REMED. TEST

	Part 1	4	Part 1	4	Part 1	4	Part 1	4
	Part 2	3	Part 2	2	Part 2	3	Part 2	2
		7		6		7		6

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-08 Finding Information in Illustrations

PREREQUISITE(s): None

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to answer a question by finding the needed information in an illustration.

STANDARD

The student must get 4 out of 5 correct to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

1. Where is the NOISE BLANKER switch located?
 - A. to the right of the FREQ. VERNIER control
 - B. to the right of the AUDIO GAIN control
 - C. to the right of the SQUELCH switch
 - D. to the right of the KC controls

Answer: c

(Illustration attached)

LESSON SPECIFICATION

GENERALITY

To answer questions about information in an illustration, the student should:

1. Decide what parts are named in the question.
2. Find the labels for these parts in the illustration.
3. Find the parts in the illustration.
4. Reread the question.
5. Find the needed information regarding the parts in the illustration.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
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	4	5	4	5	
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PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-09 Finding Information in Tables

PREREQUISITE(s): None

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to locate information in a table.

STANDARD

The student must get 8 out of 9 correct to pass this test.

LESSON SPECIFICATION

B-09

SAMPLE TEST ITEM

1. (Use Table 47.) Find the letters that are matched with Q and 5.

	0	1	2	3	4	5	6	7	8	9
A	VDFJ	AUM	IHC	EL	XW	YNO	GT	QK	PS	RB
B	CIFN	WKV	BDQ	ES	RH	YOJ	XL	AT	UG	PM
C	QXSJ	CFY	OGD	RT	UA	VIN	KH	EM	WP	LB
D	IOBS	JKQ	FEG	DP	MN	XWL	CH	TA	VU	RY
E	KLPA	MJX	QDY	CH	GW	VFE	BT	RN	UI	OS
F	VUCI	EPA	NXY	TH	BQ	OGJ	LK	WR	FM	DS
G	NYAO	UFK	GJW	QI	DT	BLH	ES	VR	CX	PM
H	KHIV	GYC	RPS	FO	JX	QWATU	DB	EM	NL	
I	BWOA	DPJ	UGY	NH	RE	VCI	TS	LM	FQ	KX
J	PCWX	RQF	JVM	OY	HS	EGD	BN	KT	UA	IL
K	CQPK	ASM	TDJ	WX	IH	NUR	GB	OL	YE	VF
L	BWRF	JPC	QON	AV	HG	IML	DU	SK	YX	ET
M	HQIA	XLC	FVB	SK	OJ	MUDRW	YN	GE	TP	
N	CWQF	KJS	XHP	AE	TN	UGC	VL	MD	RI	OB
O	NWFD	QBS	RJX	PH	YT	ICM	OG	AV	LU	KE
P	PAFT	NSC	DGR	QM	WX	HKI	OE	YJ	UB	LV
Q	SNGD	JTP	WYI	CR	BE	UOV	MX	FH	QK	LA
R	AMRH	NJG	QUY	SE	IO	KDL	PV	XC	WB	FT
S	YWGS	VXE	IDC	KQ	OA	TPH	BU	JR	ML	NF
T	BCDL	FOR	AUT	NV	GW	SXK	PI	ME	HQ	JY
U	RMQD	WVS	JYX	TG	UL	FEK	PB	OA	NH	IC
V	BOKA	HXG	SLC	PD	JT	EFQ	IV	WM	RN	UY
W	ASLW	YVD	TRO	BE	CI	PFX	HG	MN	JQ	KU
X	DLTV	NEQ	PAS	XB	OC	MHJ	KW	RF	IG	YU
Y	XSIC	YGP	NFW	HE	KL	JAR	VO	QD	TM	BU
DAY 17										
KTC 1400										
A										
CLASSIFICATION MARKING										

Table 47

Answer: UOV

GENERALITY

To find information in a table, the student should:

1. Read the row headings and find the correct row.
2. Read the column headings and find the correct column.
3. Find the cell where the row and column meet.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
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9

9

9

9

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-10 Finding Information in Diagrams

PREREQUISITE(s): None

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

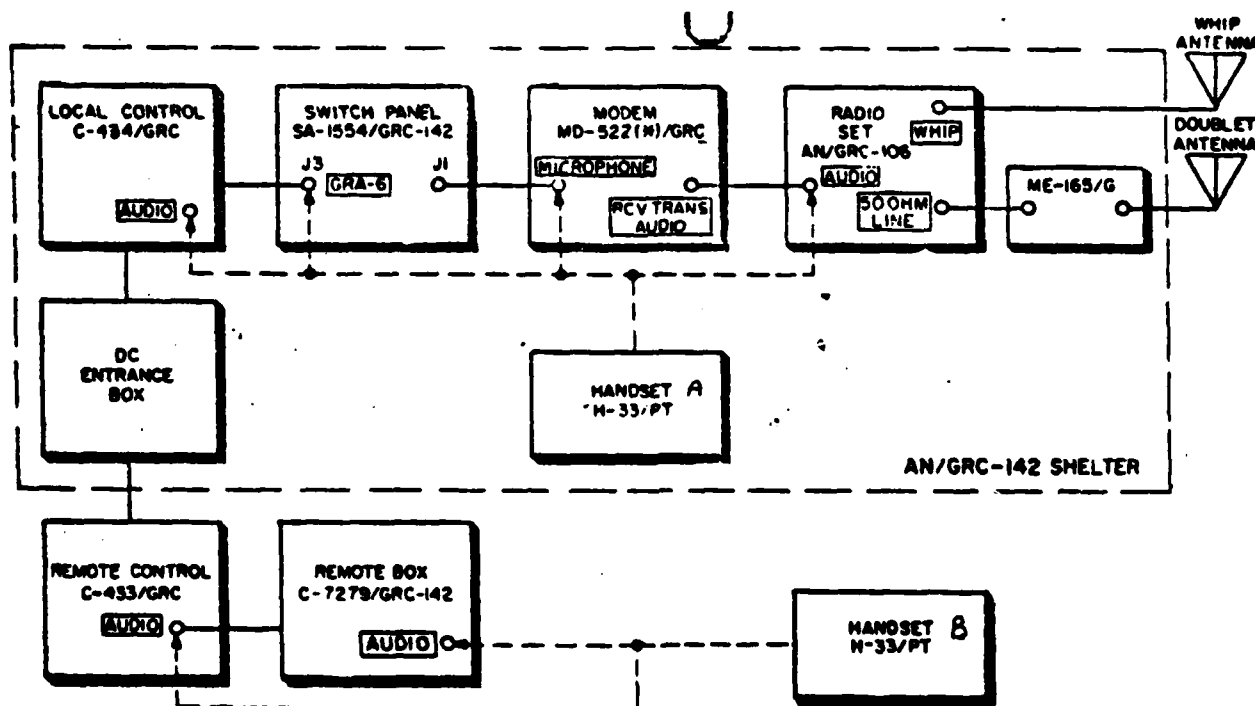
The student will be able to find information in block diagrams.

STANDARD

The student must get 8 out of 9 correct to pass this test.

SAMPLE TEST ITEM

1. (Use Fig. 5.) What three pieces of equipment are connected to the Radio Set by cable?



Radio Teletypewriter Set AN/GRC-142, interunit voice frequency signal paths and keying circuits, block diagram.

Fig. 5

Answer: The Modem MD-522 (*)/GRC
 The ME 165/G
 The Whip Antenna

LESSON SPECIFICATION

GENERALITY

To answer questions about information in a diagram, the student will:

1. Identify the symbols in the diagram.
2. Locate the items that are named in the question on the diagram.
3. Trace the connection or path of flow between the items you have located.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
8	8	9	8	9

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-11 Finding Information in Manuals

PREREQUISITE(s): None

HOURL(s): 3

TYPE: Self paced

OBJECTIVE:

The student will be able to answer questions pertaining to information contained in the text, illustrations, tables, and diagrams of manuals, given TM 11-5805-262-12, Switchboards, Telephone, Manual SB-22/PT and SB-22A/PT.

STANDARD

The student must get 9 out of 10 correct to pass this test.

SAMPLE TEST ITEM

(Use TM 11-5805-262-12)

With what kind of wire do you connect a teletypewriter set and a telegraph terminal to a switchboard?

Answer: Wire WD-1/TT

B-11

GENERALITY

To answer questions from information in manuals, the student will:

1. Read the question.
2. Locate the information in the text, an illustration, a table and/or a diagram.
3. Read the information.
4. Answer the question.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
2	8	10	8	10

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-12 Matching Terms and Their Definitions

PREREQUISITE(s): None

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to choose the correct definition of a term, given a list of terms and a list of definitions.

STANDARD

The student must get 18 out of 20 correct to pass this test.

SAMPLE TEST ITEM

Choose the definition that best matches each term.

1. curtail _____
 - a. far away
 - b. to cut short, reduce

LESSON SPECIFICATION

B-12

GENERALITY

In order to learn the correct definition of a term, the student will:

1. Read each word and pronounce it.
2. Study the definition and the way the word is used in a sentence.
3. Read the word and pronounce it again.

- | | |
|----------------|------------------------|
| 1. exempt | 11. authority |
| 2. precedence | 12. classification |
| 3. precede | 13. unauthorized |
| 4. subsequent | 14. file |
| 5. sequence | 15. accounting |
| 6. preliminary | 16. local |
| 7. adequate | 17. remote |
| 8. appropriate | 18. zone |
| 9. evacuate | 19. in the interest of |
| 10. aspects | 20. curtail |

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
60	20	20	20	20

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-13 Matching Terms and Their Definitions

PREREQUISITE(s): B-12

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to choose the correct definition of a term, given a list of terms and a list of definitions.

STANDARD

The student must get 18 out of 20 correct to pass.

LESSON SPECIFICATION

SAMPLE TEST ITEM

On the left side of the page there is a list of terms. On the right side there is a list of definitions. Choose the definition that best matches each term. There are two parts to this test, Part and Part B.

Part A

- | | |
|------------|---|
| 1. percent | a. a number of things arranged in a horizontal line |
| | b. for or in every hundred |

LESSON SPECIFICATION

GENERALITY

In order to learn the correct definition, the student should:

1. Read each word and pronounce it.
2. Study the definition and the way the word is used in a sentence.
3. Read the word and pronounce it again.

- | | |
|---------------------|-----------------|
| 1. align | 11. alternating |
| 2. deflection | 12. horizontal |
| 3. angle | 13. vertical |
| 4. degree | 14. one-tenth |
| 5. right angle | 15. square inch |
| 6. frequency | 16. row |
| 7. centered | 17. column |
| 8. clockwise | 18. cell |
| 9. counterclockwise | 19. diameter |
| 10. beveled | 20. percent |

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
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60	20 A & B	20 A & B	20 A & B	20 A & B	
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PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-14 Matching Terms and Their Definitions

PREREQUISITE(s): B-12, B-13

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to choose the correct definition of a term, given a list of terms and a list of definitions.

STANDARD

The student must get 18 out of 20 correct to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

Choose the definition that best matches each term:

- | | |
|--------------------|---|
| 1. deficient _____ | a. an object which extends out
from another object |
| | b. lacking something |

LESSON SPECIFICATION

GENERALITY

In order to learn the correct definition of a term, the student will:

1. Read each word and pronounce it.
2. Study the definition and the way the word is used in a sentence.
3. Read the word and pronounce it again.

- | | |
|----------------|---------------|
| 1. control | 11. switch |
| 2. latch | 12. cable |
| 3. receptacle | 13. joint |
| 4. cubicle | 14. circuit |
| 5. tripod | 15. mode |
| 6. accessory | 16. dummy |
| 7. auxiliary | 17. tension |
| 8. ventilation | 18. slack |
| 9. projection | 19. defect |
| 10. mount | 20. deficient |

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
60	20	20	20	20

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-15 Matching Terms and Their Definitions

PREREQUISITE(s): B-12, B-13, B-14

HOUR(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to choose the correct definition of a term.

STANDARD

The student must get 18 out of 20 correct to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

Choose the definition that best matches each term.

1. symbol _____
 - a. a letter, number, mark or object which stands for something else
 - b. using secret writing or code

LESSON SPECIFICATION

GENERALITY

To learn the correct definition of a term, the student will:

1. Read each term and pronounce it.
2. Study the definition and the way the term is used in a sentence.
3. Read the term and pronounce it again.

- | | |
|-------------------|----------------|
| 1. extract | 11. text |
| 2. phrase | 12. custodian |
| 3. abbreviated | 13. revocation |
| 4. destruction | 14. materials |
| 5. maintain | 15. manual |
| 6. forfeiture | 16. code |
| 7. compromise | 17. disclose |
| 8. exposure | 18. symbol |
| 9. nomenclature | 19. suspension |
| 10. cryptographic | 20. disposal |

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
58	20	20	20	20

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-16 Matching Terms and Their Definitions

PREREQUISITE(s): B-12, B-13, B-14, B-15

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to choose the correct definition of a term, given a list of terms and a list of definitions.

STANDARD

The student must get 19 out of 21 correct to pass this test.

SAMPLE TEST ITEM

Match the terms and their definitions.

1. echelon _____

a. a level within an organization

b. relating to sound

LESSON SPECIFICATION

GENERALITY

To learn the correct definition of a term, the student will:

1. Read each term and pronounce it.
2. Study the definition and the way the term is used in a sentence.
3. Read the term and pronounce it again.

- | | |
|-----------------|-------------------|
| 1. transmit | 11. originate |
| 2. acknowledge | 12. organization |
| 3. operator | 13. echelon |
| 4. monitor | 14. dual |
| 5. coordinates | 15. multiple |
| 6. interference | 16. collective |
| 7. intrusion | 17. interrogation |
| 8. obstruction | 18. audio |
| 9. deception | 19. authentic |
| 10. addressee | 20. verify |
| | 21. challenge |

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
63	21	21	21	21

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-17 Integrating Information to Form Concepts: NET, CEOI

PREREQUISITE(s): None

HOURL(s): 3

TYPE: Group paced with Overhead Transparencies

OBJECTIVE:

The student will be able to match a set of terms with their definitions. All terms will relate to the concepts NET and CEOI.

STANDARD

Part 1 and 2:

The student must get 24 out of 28 correct to pass this test.

Part 3:

The student must get 12 out of 14 correct to pass this test.

B-17

SAMPLE TEST ITEM

Match the following terms and definitions that apply to Net.

Terms

1. authenticate _____

Definitions

- A. This is a device used to send International Morse Code messages by means of electricity sent through wire.
- B. This procedure is used to prevent the enemy from entering a net to disrupt or confuse operations.

GENERALITY

To help you learn the definitions of terms, the student will organize the terms by doing the following:

1. Read the list of terms and definitions carefully, looking for relationships among the terms.
2. Construct tables showing opposites/equivalents.
3. Make outlines showing classification relationships.
4. Draw diagrams showing whole/part relationships.
5. Draw arrows showing cause/effect relationships.
6. Construct a table of similarities to familiar terms.
7. Study the terms and definitions again.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
17	42	42	42	42

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-18 Integrating Information to Form Concepts: Message, Radio Set,
Teletypewriter Set

PREREQUISITE(s): B-17

HOURL(s): 4

TYPE: Self paced

OBJECTIVE:

The student will be able to match a set of terms with their definitions. All terms will relate to the concepts message, radio set, and teletypewriter set.

STANDARD

Part 1: The student must get 16 out of 20 correct to pass this test.

Part 2 and 3: The student must get 20 out of 25 correct to pass this test.

Part 4: The student must get 10 out of 13 correct to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

Match each term with its definition.

<u>Terms</u>	<u>Definitions</u>
1. Action addressee _____	a. This is the part of the message heading which shows the person who takes no action but should know about the message.
	b. This is the part of the message heading which shows the person who is to take action as a result of the message.

LESSON SPECIFICATION

GENERALITY

To help the student learn the definitions of terms, the student will organize the terms by doing the following:

1. Read the list of terms and definitions carefully, looking for relationships among the terms.
2. Construct tables showing opposites/equivalents.
3. Make outlines showing classification relationships.
4. Draw diagrams showing hole/part relationships.
5. Draw arrows showing cause/effect relationships.
6. Construct a table of similarities to familiar terms.
7. Study the terms and definitions again.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
2	58	58	58	

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-19 Integrating Information to Form Concepts: Antenna, Generator

PREREQUISITE(s): B-17

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to match a set of terms with their definitions. All terms will relate to the concepts Antenna and Generator.

STANDARD

Part 1:

The student must get 17 out of 21 correct to pass this test.

Part 2:

The student must get 10 out of 13 correct to pass this test.

SAMPLE TEST ITEM

Match each of the terms in Column A with its definition in Column B.
(A letter can be used only once and there is one letter that will not be used at all.)

Column A

1. Antenna

Column B

- a. This is a metal rod or wire, attached to a radio, used to transmit and receive radio waves.
- b. This is the positioning of an antenna in relation to terrain features in order to get the best transmission and reception of radio waves.

Answer: a

LESSON SPECIFICATION

GENERALITY

To learn the definitions of terms, the student should organize the terms by doing the following:

1. Read the list of terms and definitions carefully, looking for relationships among the terms.
2. Construct tables showing opposites/equivalents.
3. Make outlines showing classification relationships.
4. Draw diagrams showing whole/part relationships.
5. Draw arrows showing cause/effect relationships.
6. Construct a table of similarities to familiar terms.
7. Study the terms and definitions again.

ITEM POOL

STUDY EX. PRACTICE LESSON TEST REMED. EX. REMED. TEST

	Part I- 21 Part II-13 34	Part I -21 Part II-13 34	Part I -21 Part II-13 34	Part I -21 Part II-13 34	
--	--------------------------------	--------------------------------	--------------------------------	--------------------------------	--

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-20 Integrating Information to Form Concepts: Security,
ECM/ECCM

PREREQUISITE(s): B-17

HOUR(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to match a set of terms with their definitions. All terms will relate to the concepts Security and ECM/ECCM.

STANDARD

Part 1

The student must get 16 out of 20 correct to pass this test.

Part 2

The student must get 12 out of 15 correct to pass this test.

LESSON SPECIFICATION

B-20

SAMPLE TEST ITEM

Match the following terms and definitions that apply to ECM/ECCM by placing the letter of the definition next to the term.

Terms

1. anti-intrusion measures _____

Definitions

- A. This is a report which describes the enemy's actions to cripple our communication through beaconing, Intrusion, Jamming, and Interference.
- B. These are actions taken to prevent the enemy from entering a net to intercept messages and/or to send false messages.

GENERALITY

To help learn the definitions of terms, the student will organize the terms by doing the following:

1. Read the list of terms and definitions carefully, looking for relationships among the terms.
2. Construct tables showing opposites/equivalents.
3. Make outlines showing classification relationships.
4. Draw diagrams showing whole/part relationships.
5. Draw arrows showing cause/effect relationships.
6. Construct a table of similarities to familiar terms.
7. Study the terms and definitions again.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
1	35	35	35	35

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
1	35	35	35	35

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-21 Integrating Information to Form Concepts: Operator and Maintenance MOS, Manuals

PREREQUISITE(s): B-17

HOUR(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to match a set of terms with their definitions. All terms will relate to the concepts Operator MOS, Maintenance MOS, and Manuals.

STANDARD

Part 1

The student must get 16 out of 20 correct to pass this test.

Part 2

The student must get 15 out of 19 correct to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

Match the following terms and definitions that apply to the concept manual.

<u>Terms</u>	<u>Definitions</u>
1. TM Series 11 _____	A. This series of technical manuals covers communication. Example: TM 11-5820-348-15, Antenna Equipment RC-292.
	B. This is the Army pamphlet which lists the Technical Manuals published by the Army.

GENERALITY

To help learn the definitions of terms, the student will organize the terms by doing the following:

1. Read the list of terms and definitions carefully, looking for relationships among the terms.
2. Construct tables showing opposites/equivalents.
3. Make outlines showing classification relationships.
4. Draw diagrams showing whole/part relationships.
5. Draw arrows showing cause/effect relationships.
6. Construct a table of similarities to familiar terms.
7. Study the terms and definitions again.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
1	39	39	39	39

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-22 Comprehending Reading Passages on Topics Related to Radio
Teletype Communications

PREREQUISITE(s): B-17

HOUR(s): 2

TYPE: Group paced with Overhead Transparencies

OBJECTIVE:

The student will be able to answer questions about a passage on topics
relating to radio teletype communications.

STANDARD

No test.

PAGE 2 OF 3

B-22

LESSON SPECIFICATION

SAMPLE TEST ITEM

AD-A130 235

FBSEP (FUNCTIONAL BASIC SKILLS EDUCATION PROGRAM)
DEVELOPMENT REPORT 05C10(U) PERSPECTIVE INSTRUCTIONAL
COMMUNICATIONS INC SAN DIEGO CA 11 JUN 82

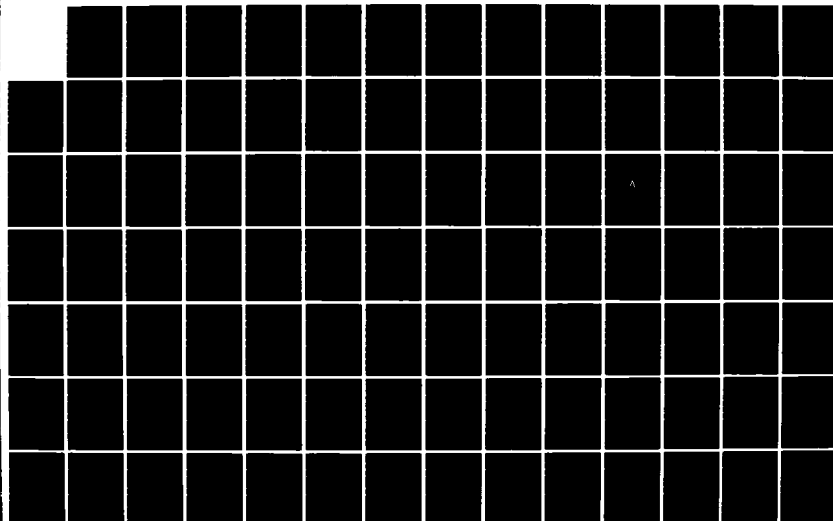
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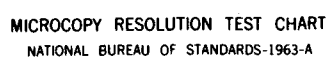
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NL





GENERALITY

To answer questions about a passage, the student will do the following:

1. Read the passage.
2. Read the question.
 - a. Note the question type.
 - b. Note the key words.
3. Scan the passage for the answer using question type and key words as clues.
4. Select the answer.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
12	10			

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-23 Comprehending Reading Passages on Topics Relating to Radio
Teletype Communications

PREREQUISITE(s): B-18, B-22

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to answer questions about a passage on topics
relating to radio teletype communications.

STANDARD

No test.

PAGE 2 OF 3

B-23

LESSON SPECIFICATION

SAMPLE TEST ITEM

LESSON SPECIFICATION

GENERALITY

To answer questions about a passage, the student will:

1. Read the passage.
2. Read the question.
 - a. Note the question type.
 - b. Note the key words.
3. Scan the passage for the answer, using the question type and the key words as clues.
4. Select the answer.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
	30			

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-24 Comprehending Reading Passages on Topics Relating to Radio
Teletype Communications

PREREQUISITE(s): B-19, B-22

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to answer questions about a passage on topics
relating to radio teletype communications.

STANDARD

No test.

PAGE 2 OF 3

LESSON SPECIFICATION

B-24

SAMPLE TEST ITEM

GENERALITY

To answer questions about a passage, the student will:

1. Read the passage.
2. Read the question.
 - a. Note the question type.
 - b. Note the key words.
3. Scan the passage for the answer, using the question type and the key words as clues.
4. Select the answer.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
	20			

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-25 Comprehending Reading Passages on Topics Relating to Radio
Teletype Communications

PREREQUISITE(s): B-20, B-22

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to answer questions about a passage on topics
relating to radio teletype communications.

STANDARD

No test.

PAGE 2 OF 3
B-25

LESSON SPECIFICATION

SAMPLE TEST ITEM

LESSON SPECIFICATION

GENERALITY

To answer questions about a passage, the student will:

1. Read the passage.
2. Read the question.
 - a. Note the question type.
 - b. Note the key words.
3. Scan the passage for the answer, using the question type and the key words as clues.
4. Select the answer.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
	22			

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-26 Comprehending Reading Passages on Topics Relating to Radio
Teletype Communication

PREREQUISITE(s): B-21, B-22

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to answer questions about a passage on topics relating to radio teletype communications.

STANDARD

No test.

PAGE 2 OF 3
B-26

LESSON SPECIFICATION

SAMPLE TEST ITEM

QUALITY

To answer questions about a passage, the student will:

1. Read the passage.
2. Read the question.
 - a. Note the question type.
 - b. Note the key words.
3. Scan the passage for the answer, using the question type and the key words as clues.
4. Select the answer.

POOL

EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
	26			

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-27 Comprehending Reading Passages on Topics Relating to Radio
Teletype Communications

PREREQUISITE(s): B-22 through B-26

HOURL(s): 1

TYPE: Self paced

OBJECTIVE:

The student will be able to answer questions about a passage on topics
relating to radio teletype communications.

STANDARD

The student must get 13 out of 15 correct to pass this test.

SAMPLE TEST ITEM

Select the item which is not true according to the passage.

- A. Moving equipment hundreds of miles away from a nuclear explosion can prevent damage to it.
- B. A radio operator needs to know the capabilities of his or her equipment.
- C. Reducing the reliance on electrical or radio communications helps to diminish the impact of EMP.
- D. The possibility of electronic warfare is present today.

GENERALITY

To answer questions about a passage, the student will:

1. Read the passage.
2. Read the question.
 - a. Note the question type.
 - b. Note the key words.
3. Scan the passage for the answer, using the question type and the key words as clues.
4. Select the answer.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
		15		

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-28 Deciding if Information in a Message is Missing.

PREREQUISITE(s): None

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to decide if a message is complete or not.

STANDARD

The student must get 5 out of 6 correct to pass the test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

Read each message. Decide whether it is complete or incomplete. On a separate sheet of paper, write whether or not the message is complete. If it is incomplete, indicate where the necessary information is missing by writing which word it comes before.

1. B COMPANY AND ARE SCHEDULED FOR EVALUATION BEGINNING 7 JUNE 82 THROUGH 15 JUNE 82.

Answer: 1. Message is incomplete. Something is missing before the word are.

LESSON SPECIFICATION

GENERALITY

To decide if information is missing, the student should:

1. Read the entire message carefully.
2. Decide if the message is complete or incomplete based on whether or not it makes sense.
3. If the message is not complete, find the place where the necessary information is missing.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
-----------	----------	-------------	------------	-------------

	7	6	7	6	
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PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-29 Deciding if Information in a Message is in Error

PREREQUISITE(s): None

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to decide if the information in a message is in error.

STANDARD

The student must get 5 out of 6 correct to pass the test.

SAMPLE TEST ITEM

Read each message. Then read sentences A, B, C, D, and E and find the one that is correct.

FOLLOWING FOUR UNITS ARE TO REPORT TO BATTALION HEADQUARTERS 4 OCT 82
4 OCT 82 AT 0700 HOURS:

1st PLATOON, C COMPANY

3rd PLATOON, B COMPANY

1st PLATOON, HEADQUARTERS COMPANY

PLATOONS WILL ARRIVE WITH PERSONAL WEAPONS AND AMMUNITION.

- A. There is an error in the number of units listed.
- B. There is an error in the date 4 Oct 82.
- C. There is an error in the name of one of the companies.
- D. There is an error in the time 0700 hours.
- E. There is no error.

Answer: A

LESSON SPECIFICATION

GENERALITY

To decide if information is in error, the student will:

1. Read the entire message carefully.
2. Check to see if there is any information that is contrary to what he/she knows or that does not match other information in the message.
3. Indicate where the error is.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
-----------	----------	-------------	------------	-------------

6	6	6	6	6
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LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-30 Detecting Problems in Messages

PREREQUISITE(s): None

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to indicate where information in a message is missing or in error, or indicate that the message is complete and correct.

STANDARD

The student must get 4 out of 5 correct to pass the test.

SAMPLE TEST ITEM

Read each message. Then read sentences A, B, C, D, and E and choose the correct answer. Note that there may be two correct answers. If there are, you must write down both letters.

1. SUBJECT: USE OF AMMUNITION

TO ALL UNITS. EFFECTIVE IMMEDIATELY. RESTRICT USE
OF AMMUNITION TO FINAL PROTECTIVE FIRE FOR PLAN DELTA.
7 SEPT 82 AT 1800 HOURS. MAINTAIN CONTACT WITH FOR
FURTHER INSTRUCTIONS.

- A. Something is missing after words to all units.
- B. Something is missing after words maintain contact with.
- C. There is an error in the date given.
- D. There is an error in the time given.
- E. The message is complete and there are no errors.

Answer: B

LESSON SPECIFICATION

GENERALITY

To detect problems in messages, the student should:

1. Read the entire message carefully.
2. Decide if the message is complete or if information is missing.
If information is missing, indicate where.
3. Decide if the information is correct or if there are any errors.
If there is an error, indicate where.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
-----------	----------	-------------	------------	-------------

	5	5	5	5
--	---	---	---	---

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-31 Finding Information in Illustration Using Text

PREREQUISITE(s): None

HOURL(s): 4

TYPE: Self paced

OBJECTIVE:

The student will be able to find information in an illustration by using a textual description relating to that illustration.

STANDARD

The student must get 4 out of 5 correct to pass this test.

LESSON SPECIFICATION

LE TEST ITEM

1. Select the letter label which identifies the position of the FUNCTION switch which prevents noise from being heard when a signal is not being received.

TEXT:

Control, indicator, or connector	Function
Function switch ———	Six-position switch. <i>See page</i>
OFF	Turns off power to the R-392/URR.
STAND BY	Applies power to tube filaments.
NORMAL	Sets up R-392/URR for normal operation.
LIMITER	Reduces static. Has little effect on static when receiving weak signals.
NET	Permits simultaneous operation of the R-392/URR and an associated T-195(*)/GRC-19.
SQ (squelch)	Prevents noise from being heard when a signal is not being received. The minimum signal level which can be received in the SQ position is determined by the position of the RF GAIN SQUELCH THRESH control.

Illustration (See next page)

Answer: D

ILLUSTRATION:



LESSON SPECIFICATION

GENERALITY

To answer a question about information in an illustration and a text, the student will:

1. Read the question identifying possible key words.
2. Read the text watching for the key words.
3. Find the needed information in the text.
4. Find the needed information in the illustration by using the information already obtained in the text.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
-----------	----------	-------------	------------	-------------

3	3	5	3	5
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LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-32 Identifying Parts of Equipment Using Illustration

PREREQUISITE(s): NoneHOUR(s): 4TYPE: Group paced with Overhead Transparencies

OBJECTIVE:

The student will be able to identify parts of equipment by using an illustration of that equipment, given the following equipment:

Radio Set AN/PRC-77

Radio Set AN/GRC-106 inc.

Amplifier AM-3349/GRC

Receiver-Transmitter RT-834/GRC

Radio Set AN/VRC-46 i.e.

Receiver-Transmitter RT-524/VRC

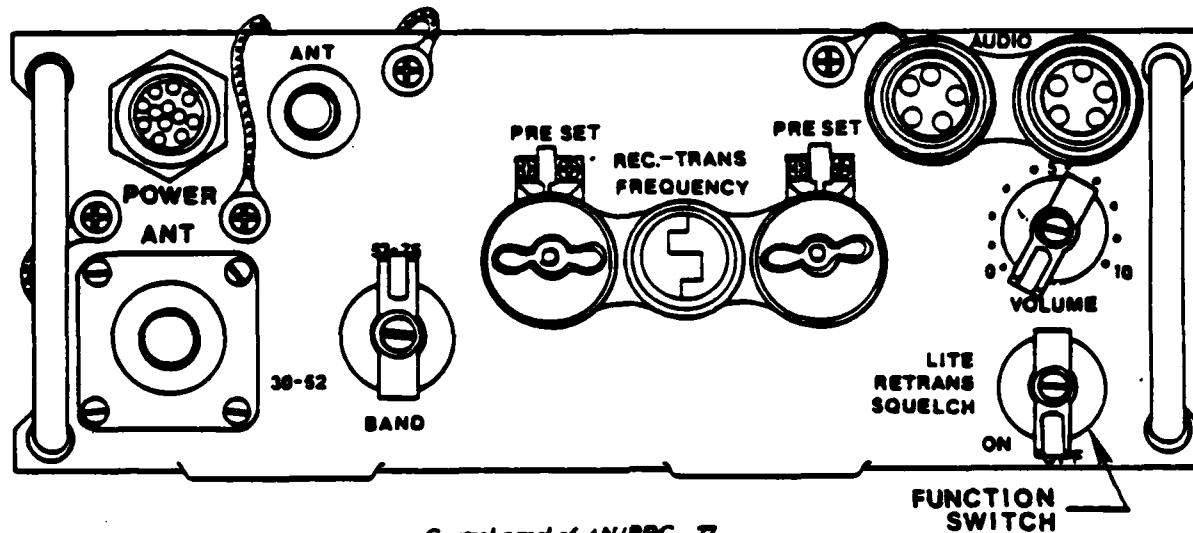
STANDARD

The student must get 4 out of 5 correct to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

Identify the Channel Dial for the REC-TRANS FREQUENCY controls on Radio Set AN/PRC-77.



Control panel of AN/PRC - 77

LESSON SPECIFICATION

GENERALITY

To answer questions which require identifying parts of equipment using an illustration, the student will:

1. Decide what part is named in the question.
2. Find the label for that part in the illustration.
3. Find the part in the illustration.
4. Find the identical part on the equipment.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
-----------	----------	-------------	------------	-------------

5	5	5	5	5
---	---	---	---	---

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

B-33 Performing a Procedure Using Illustration/Text

PREREQUISITE(s): None

HOURL(s): 4

TYPE: Group paced with Overhead Transparencies

OBJECTIVE:

The student will be able to perform a procedure based on a textual description and/or an illustration of that procedure, given the following equipment:

Radio Set AN/PRC-77
Radio Set AN/GRC-106 inc.
Amplifier AM-3349/GRC
Receiver-Transmitter RT-834/GRC
Radio Set AN/VRC-46 i.e.
Receiver-Transmitter RT-524/VRC

STANDARD

The student must get 11 out of 13 correct to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

On Receiver-Transmitter RT-834, Set VOX switch to PUSH-TO-TALK position.

LESSON SPECIFICATION

B-33

GENERALITY

To perform a procedure using an illustration/text, the student will:

1. Read the entire procedure.
2. Read the first step in the procedure.
3. If an illustration is included, find the needed information in the illustration using the information in that step.
4. Find the identical part(s) on the equipment.
5. Reread the same step.
6. Do what is described in that step.
7. Repeat #2 through #6 for each step in the procedure.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
11	6	13	6	13

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

C-01 Tracing Letters and Numbers in a Chart

PREREQUISITE(s): None

HOUR(s): 1

TYPE: Group paced with Overhead Transparencies

OBJECTIVE:

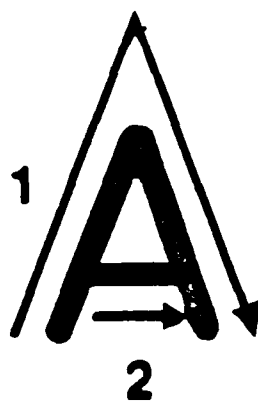
The student will be able to use the stroke numbers and direction arrows to trace the letter and numbers on a Military Lettering Chart, given tracing paper.

STANDARD

The student must get 4 out of 4 correct to pass this test.

SAMPLE TEST ITEM

Use the tracing paper to trace the letter properly.



PAGE 3 OF 3
C-01

LESSON SPECIFICATION

GENERALITY

Military Lettering Chart (See attached)

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
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4	36	4	36	4
---	----	---	----	---

MILITARY LETTERING

A	B	C	D
E	F	G	H
I	J	K	L
M	N	O	P
Q	R	S	T
U	V	W	X
Y	Z	1	2
3	4	5	6
7	8	9	0

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

C-02 Pronouncing Numbers and Letters Using the Phonetic Alphabet Chart

PREREQUISITE(s): None

HOURL(s): 1

TYPE: Group paced with Chart

OBJECTIVE:

The student will be able to read the letters and numbers of the Phonetic Alphabet Chart using standard military pronunciation and emphasis.

STANDARD

The student must get 34 out of 36 correct to pass this test.

2 OF 3

C-02

LESSON SPECIFICATION

TEST ITEM

Read the phonetic alphabet chart (see attached)

(A-alfa, B-bravo etc.)

PHONETIC ALPHABET

A ALFA (<u>AL</u> FAH)	B BRAVO (BRAH VOH)	C CHARLIE (CHAR LEE)	D DELTA (DELL TAH)
E LCHO (<u>ECK</u> OH)	F FOXTROT (<u>FOKS</u> TROT)	G GOLF (GOLF)	H HOTEL (HOH <u>TELL</u>)
I INDIA (IN DEE AH)	J JULIETT (<u>JEW</u> LEE ETT)	K KILO (<u>KEY</u> LOH)	L LIMA (LEE MAH)
M MIKE (MIKE)	N NOVEMBER (NO <u>YEM</u> BER)	O OSCAR (OSS CAH)	P PAPA (PAH PAH)
Q QUEBEC (KEH <u>BECK</u>)	R ROMEO (ROW ME OH)	S SIERRA (SEE AIR RAH)	T TANGO (TANG GO)
U UNIFORM (YOU NEE FORM)	V VICTOR (VIK TAH)	W WHISKEY (WISS KEY)	X XRAY (<u>ECKS</u> RAY)
Y YANKEE (YANG KEY)	Z ZULU (ZOO LOO)	1 WUN	2 TOO
3 TREE	4 FO -WER	5 FIFE	6 SIX
7 SEV-EN	8 AIT	9 NIN-ER	Ø ZE-RO

LESSON SPECIFICATION

GENERALITY

To pronounce the letters and numbers in the chart, the student will:

1. Look at the letter or number to be pronounced and notice the key word below it.
2. Look at the way the key word has been spelled phonetically.
3. Look at the way the key word has been separated into syllables and note which syllable is underlined.
4. Read the letter (or number) and the key word, emphasizing the syllable that has been underlined.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
36	36	36	36	36

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

C-03 Arranging Single Letters in Alphabetic Order

PREREQUISITE(s): None

HOURL(s): 1

TYPE: Self paced

OBJECTIVE:

The student will be able to arrange a list of single letters in alphabetic order.

STANDARD

The student must get 3 out of 3 correct to pass this test.

SAMPLE TEST ITEM

Arrange these letters in alphabetic order:

S I T F Q

LESSON SPECIFICATION

GENERALITY

To arrange letters in alphabetic order, the student will:

1. Say the alphabet to yourself.
2. When you come to a letter in the alphabet that is on the list you have been given, write the letter.
3. Check the arrangement you have by saying the alphabet to yourself again and making sure that your written list is in the correct order.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
4	3	3	3	3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

C-04 Arranging Letter-Number-Letter Groups in Alphanumeric Order

PREREQUISITE(s): None

HOUR(s): 1

TYPE: Self paced

OBJECTIVE:

The student will be able to arrange a list of letter-number-letter groups in alphanumeric order.

STANDARD

The student must get 4 out of 5 correct to pass this test.

SAMPLE TEST ITEM

Arrange these in alphanumeric order:

G2L

R4X

G9Q

G2F

E3Y

ANSWER: E3Y

G2F

G2L

G9Q

R4X

LESSON SPECIFICATION

GENERALITY

To arrange letter-number-letter groups in alphanumeric order the student will:

1. Arrange the groups in alphabetic order on the basis of the first letter in the group.
2. If two or more groups have the same first letter, arrange these groups in numerical order on the basis of the number in the group.
3. If two or more groups have the same first letter and number, arrange these groups in alphabetic order on the basis of the last letter in the group.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
5	5	5	5	5

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

C-05 Spelling Commonly Used Military Words

PREREQUISITE(s): None

HOUR(s): 1

TYPE: Self paced with Audio Tape

OBJECTIVE:

The student will be able to spell commonly used military words, given an Audio Tape.

STANDARD

The student must get 26 out of 30 correct to pass this test.

SAMPLE TEST ITEM

Listen to each word twice. Then you will be given time to write it:

abbreviation

ammunition

function

interrogation

LESSON SPECIFICATION

GENERALITY

To learn to spell the words, the student will:

1. Study the spelling of each word and its syllabication.
2. Pronounce each word.
3. Write each word.
4. Check the spelling of each word.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
	30	30	30	30

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

C-06 Spelling Commonly Used Military Words

PREREQUISITE(s): C-05

HOUR(s): 1

TYPE: Self paced with Audio Tape

OBJECTIVE:

The student will be able to spell commonly used military words, given an Audio Tape.

STANDARD

The student must get 26 out of 30 correct to pass this test.

SAMPLE TEST ITEM

Listen to each word twice. Then you will be given time to write it.

adequate

request

subsequent

receive

REALITY

To learn to spell the words, the student will:

1. Study the spelling of each word and its syllabication.
2. Pronounce each word.
3. Write each word.
4. Check the spelling of each word.

POOL

EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
	30	30	30	30

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

C-07 Spelling Commonly Used Military Words

PREREQUISITE(s): C-05,C-06

HOUR(s): 1

TYPE: Self paced with Audio Tape

OBJECTIVE:

The student will be able to spell commonly used military words, given an Audio Tape.

STANDARD

The student must get 26 out of 30 correct to pass this test.

SAMPLE TEST ITEM

Listen to each word twice. Then you will be given time to write it.

response

routine

usefulness

weather

LESSON SPECIFICATION

GENERALITY

To learn to spell the words, the student will:

1. Study the spelling of each word and its syllabication.
2. Pronounce each word.
3. Write each word.
4. Check the spelling of each word.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
-----------	----------	-------------	------------	-------------

30

30

30

30

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

C-08 Printing Text of Message Presented Orally

PREREQUISITE(s): None

HOURL(s): 3

TYPE: Self paced with Audio Tape

OBJECTIVE:

The student will be able to print the text of an oral message, given an Audio Tape.

STANDARD

The student must print with 80% accuracy on each of seven messages to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

You will hear seven messages. Each message is given one word at a time with a pause after each word. You are to print the word, number or punctuation that you hear during the pause time. Each message is repeated at a slow pace in order for you to make corrections:

COMPANY B TO REPORT FOR FIELD EXERCISE AT ZERO SIX ZERO
ZERO TOMORROW

LESSON SPECIFICATION

GENERALITY

To print text of a message presented orally, the student will:

1. Listen carefully.
2. Print each word clearly in capital letters and make punctuation marks.
3. Listen again and check for errors.
4. Make necessary corrections.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
-----------	----------	-------------	------------	-------------

	15	7	15	7
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PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

C-09 Filling Out Forms

PREREQUISITE(s): None

HOURL(s): 4

TYPE: Group paced with Overhead Transparencies

OBJECTIVE:

The student will be able to fill out a form, given a blank form and the information to be entered on the form.

STANDARD

The student must get 18 out of 20 correct to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

Fill in DA Form 4004 with the following information:

1. Text: COMMUNICATION PERSONNEL REPORT 230930Z DEC 80
FOR DEBRIEFING
2. Date-Time-Group: 171115Z/TP
3. Precedence - Act: PP
4. From: CDR 21ST BDE
5. To: CDR 3RD BDE

LESSON SPECIFICATION

GENERALITY

To fill out a form, the student will:

1. Scan the form.
2. Read the information to be entered on the form.
3. Locate blank spaces where information is to be entered.
4. Enter information in appropriate spaces.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST	
13 forms 65 items	4 forms 40 items	4 forms 20 items	4 forms 40 items	4 forms 20 items	

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

C-10 Reading Aloud Text of Printed Message

PREREQUISITE(s): None

HOURL(s): 2

TYPE: Group paced with Overhead Transparencies

OBJECTIVE:

The student will be able to read aloud the text of a message.

STANDARD

The student must read with 80% accuracy on each of three messages to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

Read the following message aloud:

RIVER ROAD CLOSED DUE TO FLOODING. COMMENCE OPERATION
MIDWAY AT 0600.

LESSON SPECIFICATION

GENERALITY

To read the text of a message aloud, the student will:

1. Rehearse the text of the message silently.
2. Pronounce each word of the text correctly, clearly, and slowly aloud.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
0	3	3	3	3

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

D-01 Changing Civilian Time To Military Time

PREREQUISITE(s): None

HOUR(s): 1

TYPE: Self paced

OBJECTIVE:

The student will be able to change civilian time to military time format.

STANDARD

The student must get 5 out of 6 correct to pass this test.

2 OF 3

D-01

LESSON SPECIFICATION

E TEST ITEM

Write the following as military time:

Half past five in the evening

(ANSWER: 1730)

LESSON SPECIFICATION

GENERALITY

To change civilian time to military time, the student will:

1. Write civilian time using a colon between hours and minutes past the hour.
 - a. Use two zeros if there are no minutes.
 - b. Use a zero in front of minutes less than 10.
2. Label as either AM or PM.
 - a. Label as AM if the time is between midnight and noon.
 - b. Label as PM if the time is after noon.
3. Change the number of hours to the number of hours past midnight.
 - a. If the time is AM:
 - (1) Use two zeros if it is after midnight but before 1:00 AM.
 - (2) Use a zero in front of hours less than 10.
 - b. If the time is 1:00 PM or later add 12.
 - c. Drop the colon and the AM/PM label.
 - d. Label as hours.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
6	6	6	6	6

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

D-02 Adding Hours to Military Time

PREREQUISITE(s): None

HOURL(s): 1

TYPE: Self paced

OBJECTIVE:

The student will be able to add hours to military time. The answer will never be more than 2400.

STANDARD

The student must get 4 out of 5 correct to pass this test.

SAMPLE TEST ITEM

Add 6 hours to 0036 hours.

(ANSWER: 0636)

LESSON SPECIFICATION

GENERALITY

To add hours to military time, the student will:

1. Multiply the number of hours by 100.
2. Add this new number to the military time.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
-----------	----------	-------------	------------	-------------

6	6	5	6	5
---	---	---	---	---

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

D-03 Subtracting Hours From Military Time

PREREQUISITE(s): None

HOURL(s): 1

TYPE: Self paced

OBJECTIVE:

The student will be able to subtract hours from military time. The difference will always be greater than zero.

STANDARD

The student must get 4 out of 5 correct to pass this test.

SAMPLE TEST ITEM

Subtract 2 hours from 0810 hours.

(ANSWER: 0610)

LESSON SPECIFICATION

GENERALITY

To subtract hours from military time the student will:

1. Multiply the number of hours by 100.
2. Subtract this new number from the military time.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
-----------	----------	-------------	------------	-------------

5

5

5

5

5

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

D-04 Adding or Subtracting Hours Moving Across Days

PREREQUISITE(s): None

HOUR(s): 1

TYPE: Self paced

OBJECTIVE:

The student will be able to add hours to or subtract hours from military time, even if it involves moving across days.

STANDARD

The student must get 8 out of 10 correct to pass this test.

SAMPLE TEST ITEM

- (1). Add 3 hours to 2332 hours, December 8.
- (2). Subtract 5 hours from 0349 hours, June 2.

ANSWERS:

- (1). 0232 hours, December 9
- (2). 2249 hours, June 1

LESSON SPECIFICATION

D-04

GENERALITY

To add hours to military time the student will:

1. Add hours.
2. Decide if the sum is greater than 2400 hours.
 - a. If the sum is not greater than 2400 hours, the sum is the time, and the date remains the same.
 - b. If the sum is greater than 2400 hours, subtract 2400 hours, and the remainder is the time. Add 1 day to the date.

To subtract hours from military time the student will:

1. Set-up the problem to subtract hours.
2. Before subtracting, decide if the difference will fall below zero.
 - a. If the difference will not fall below zero, subtract; the difference is the time and the date remains the same.
 - b. If the difference will fall below zero, add 2400 hours to the time before subtracting, and the remainder is the time. Subtract 1 day from the date.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
10	8	10	8	10

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

D-05 Adding Two Numbers Which Contain Decimals

PREREQUISITE(s): None

HOURL(s): 1

TYPE: Self paced

OBJECTIVE:

The student will be able to add two numbers that contain decimals.

STANDARD

The student must get 4 out of 5 correct to pass this test.

SAMPLE TEST ITEM

Add 15.236 and 1.5236

ANSWER: 16.7596

LESSON SPECIFICATION

GENERALITY

To add two numbers that contain decimals the student will:

1. Write the two numbers so that the decimal points are lined up one below the other.
2. Put the decimal point in the answer directly below the other decimal points.
3. Add in the same way you add whole numbers.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
5	5	5	5	5

1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

D-06 Subtracting Two Numbers Which Contain Decimals

PREREQUISITE(s): None

OBJECTIVE(s): 1

Self paced

ASSESSMENT:

The student will be able to subtract numbers that contain decimals.

STANDARD

The student must get 4 out of 5 correct to pass this test.

SAMPLE TEST ITEM

Subtract .7139 from 7.139

(ANSWER: 6.4251)

LESSON SPECIFICATION

GENERALITY

To subtract numbers that contain decimals:

1. Decide which of the two numbers is the smaller one.
2. Write the smaller number below the larger one so that the decimal points are lined up one below the other.
3. If the numbers do not have the same number of decimal places, fill these places with zeros.
4. Put the decimal point in the answer directly below the other decimal points.
5. Subtract in the same way you subtract whole numbers.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
5	5	5	5	5

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

D-07 Finding 10% of a Number

PREREQUISITE(s): None

HOUR(s): 1

TYPE: Self paced

OBJECTIVE:

The student will be able to find 10% of a number.

STANDARD

The student must get 8 out of 10 correct to pass this test.

SAMPLE TEST ITEM

Find 10% of 18.401

(ANSWER: 1.8401)

LESSON SPECIFICATION

GENERALITY

To find 10% of a number, the student will:

1. Copy the digits exactly as they appear in the original number but will not include the decimal point.
2. Write the decimal point one place to the left of where it appears in the original number.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
5	10	10	10	10

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

D-08 Finding Numbers Which Are 10% Above and 10% Below a Given Number

PREREQUISITE(s): None

HOUR(s): 1

TYPE: Self paced

OBJECTIVE:

The student will be able to find the two numbers, each of which is 10% above and 10% below a given number.

STANDARD

The student must get 8 out of 10 points to pass this test.

SAMPLE TEST ITEM

Find the numbers which are 10% above and 10% below 18.651.

(ANSWER: 20.5161 and 16.7859)

LESSON SPECIFICATION

GENERALITY

To find the numbers which are 10% above and 10% below a given number, the student will:

1. Find 10% of the given number.
2. Add the answer to Step 1 to the given number.
3. Subtract the answer to Step 1 from the given number.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
-----------	----------	-------------	------------	-------------

4	3	5	3	5
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LESSON SPECIFICATION

LESSON NUMBER AND TITLE

D-09 Multiplying a 5-Digit Number by a 1-Digit Number

PREREQUISITE(s): None

HOUR(s): 2

TYPE: Self Paced

OBJECTIVE:

The student will be able to multiply a 5-digit number by a 1-digit number.

STANDARD

The student must get 4 out of 5 correct to pass this test.

PAGE 2 OF 3

D-09

LESSON SPECIFICATION

SAMPLE TEST ITEM

4 X 57016

(ANSWER: 228064)

GENERALITY

To multiply a 5-digit number by a 1-digit number the student will:

1. Write the two numbers with the 1-digit number directly below the right-most digit of the 5-digit number and draw a line.
2. Multiply the 1-digit number by the last (right-most) digit in the 5-digit number.
 - a. If the product is a 1-digit number, write the number in the answer space.
 - b. If the product is a 2-digit number, write the units-digit in the answer space and carry the tens-digit.
3. Multiply the 1-digit number by the next digit in the 5-digit number.
 - a. If the product is a 1-digit number and there is nothing to carry, write the number in the answer space.
 - b. If the product is a 1-digit number and there is a number to carry, add the two numbers together. Write the units-digit in the answer space and carry the tens-digit.
 - c. If the product is a 2-digit number and there is nothing to carry, write the units-digit in the answer space and carry the tens-digit.
 - d. If the product is a 2-digit number and there is a number to carry, add the two numbers together. Write the units-digit in the answer space and carry the tens-digit.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
3	3	5	3	5

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

D-10 Subtracting 5-or 6-Digit Numbers

PREREQUISITE(s): None

HOURL(s): 1

TYPE: Self paced

OBJECTIVE:

The student will be able to subtract numbers that have 5-or 6-digits.

STANDARD

The student must get 4 out of 5 correct to pass this test.

SAMPLE TEST ITEM

Subtract 12486 from 39000.

(ANSWER: 26514)

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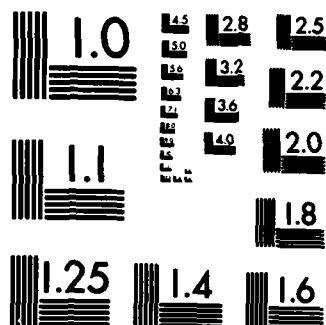
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

LESSON SPECIFICATION

D-10

GENERALITY

To subtract 5-or 6-digit numbers, the student will:

1. Write the smaller number below the larger number so that the last digits of both numbers line up.
2. Begin with the column of digits on the right and subtract the bottom digit from the top digit. If the top digit is smaller than the bottom digit, regroup and then subtract. Write the result in the same column below the line.
3. Move left to the next column. Subtract the digits in the second column. Again, if the top digit is smaller than the bottom digit, regroup and then subtract. Write the result in that column below the line.
4. Move left to the next column and subtract. Continue this process until all the digits are used.

ITEM POOL

STUDY EX. PRACTICE LESSON TEST REMED. EX. REMED. TEST

5	5	5	5	5	
---	---	---	---	---	--

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

D-11 Dividing 7-Digit Numbers by 6-Digit Numbers

PREREQUISITE(s): None

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to divide 7-digit numbers by 6-digit numbers.

STANDARD

The student must get 4 out of 5 correct to pass this test.

D-11

SAMPLE TEST ITEM

Divide 4680000 by 320423.

(ANSWER: 14)

(Students do not need to carry out to decimal places in this lesson.)

LESSON SPECIFICATION

GENERALITY

To divide, the student will:

1. Set up the problem for division.
2. Divide the first digits of the dividend by the first digit of the divisor.
3. Multiply his/her estimate by the divisor.
4. Draw a line and subtract.
5. Bring down the next digit from the dividend.
6. Repeat steps 2, 3, 4 and 5. Continue until he/she has filled all the places in the answer space.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMEDI. EX.	REMEDI. TEST
6	5	5	5	5

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

D-12 Rounding Off a Number Containing Two Decimal Places to the Nearest Tenth

PREREQUISITE(s): None

HOURL(s): 1

TYPE: Self paced

OBJECTIVE:

The student will be able to round off a number to the nearest tenth.

STANDARD

The student must get 5 out of 6 correct to pass this test.

SAMPLE TEST ITEM

Round off 3.06 to the nearest tenth.

(ANSWER: 3.1)

LESSON SPECIFICATION

GENERALITY

To round off a number that has two digits to the right of the decimal point to the nearest tenth, the student will:

1. Locate the tenth's place after the decimal point.
2. Decide if the digit to the right of the tenth's place digit is less than 5, equal to 5, or greater than 5.
3. Follow these rules:
 - a. If the digit is less than 5, drop the digit to the right of the tenth's place.
 - b. If the digit is equal to 5, drop the digit to the right of the tenth's place, and add 1 to the digit in the tenth's place.
 - c. If the digit is greater than 5, drop the digit to the right of the tenth's place, and add 1 to the digit in the tenth's place.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
3	8	6	6	6

PAGE 1 OF 3

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

D-13 Dividing 468 by a Number Containing a Decimal

PREREQUISITE(s): None

HOURL(s): 1

TYPE: Self paced

OBJECTIVE:

The student will be able to divide the number 468 by a number that contains a decimal.

STANDARD

The student must get 4 out of 5 correct to pass this test.

SAMPLE TEST ITEM

Divide 468 by 13.5021

(ANSWER: 34)

LESSON SPECIFICATION

GENERALITY

To divide by a number that contains a decimal the student will:

1. Set up the problem for division.
2. Move the decimal point to the end of the divisor.
3. Put a decimal point after 468 and move it the same number of places.
4. Put a decimal point in the answer space directly above the decimal point in the dividend.
5. Divide in the same way he/she would divide whole numbers.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
4	4	5	4	5

LESSON SPECIFICATION

LESSON NUMBER AND TITLE

D-14 Dividing 468 by a Number Containing a Decimal and Round
Off the Answer to the Nearest Tenth

PREREQUISITE(s): None

HOURL(s): 2

TYPE: Self paced

OBJECTIVE:

The student will be able to divide 468 by a number containing
a decimal and round off the answer to the nearest tenth.

STANDARD

The student must get 4 out of 5 correct to pass this test.

LESSON SPECIFICATION

SAMPLE TEST ITEM

Divide 468 by 25.90 and round off the answer to the nearest tenth.

(ANSWER: 18.1)

LESSON SPECIFICATION

D-14

GENERALITY

To divide by a number containing a decimal and round off to the nearest tenth, the student will:

1. Set up the problem for division.
2. Put the decimal points in the proper places.
3. Add two zeros after the decimal point in the dividend.
4. Divide in the same way he/she would divide whole numbers.
5. Round off the answer to the nearest tenth.

ITEM POOL

STUDY EX.	PRACTICE	LESSON TEST	REMED. EX.	REMED. TEST
4	6	5	6	5

END

FILMED

8-83

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